

Post-graduate and Research Department Series No. 20

“Pandit Shripad Shastri Deodhar Memorial Lectures”

[First Series]

**LINGUISTIC ANALYSIS AND
SOME INDIAN TRADITIONS**

GEORGE CARDONA

Bhandarkar Oriental Research Institute

POONA, India

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FOREWORD

On the occasion of the Diamond Jubilee of the Bhandarkar Oriental Research Institute, which was celebrated in June 1978, Acharya V. P. Limaye donated to the Institute a fairly substantial amount of money to enable it to found a Lectureship in memory of his revered teacher of Sanskrit in the Sangli High School, Pandit Shripad Shastri Deodhar. Accordingly, the Institute has undertaken to organize, once every two years, a series of lectures on a subject relating to Sanskrit Vyākaraṇa, to be called "Pandit Shripad Shastri Deodhar Memorial Lectures". The Institute is much beholden to Acharya Limaye, who, incidentally, could have hardly thought of a more fitting way of paying his *gurudakṣiṇā*.

The first series of the "Pandit Shripad Shastri Deodhar Memorial Lectures" was delivered by Professor George Cardona of the University of Pennsylvania, Philadelphia, U. S. A., on October 14-16, 1981. The best thanks of the Bhandarkar Oriental Research Institute are due to Professor Cardona for having readily accepted the Institute's invitation to deliver these lectures. It, indeed, augurs well for the "Pandit Shripad Shastri Deodhar Memorial Lectures" that they were inaugurated by a scholar whose contribution to the study of Sanskrit Vyākaraṇa has been quite remarkable both in quality and quantity.

The brief biographical note about Pandit Shripad Shastri Deodhar, which follows, has been kindly supplied by Acharya V. P. Limaye.

Bhandarkar Oriental
Research Institute,
Poona
June 17, 1983.

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R. N. Dandekar

FOREWORD

On the occasion of the Diamond Jubilee of the Bhandarkar Oriental Research Institute, which was celebrated in June 1978, Acharya V. R. Limaye donated to the Institute a fairly substantial amount of money to enable it to fund a Lectureship in memory of his revered teacher of Sanskrit in the English High School, Pandit Shripad Shastri Doodhan. Accordingly, the Institute has undertaken to organize, once every two years, a series of lectures on a subject relating to Sanskrit Vidyasastra, to be called "Pandit Shripad Shastri Doodhan Memorial Lectures". The Institute is much indebted to Acharya Limaye, who, incidentally, could have hardly thought of a more fitting way of paying his guru's tribute.

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R. M. Dandekar

Bhandarkar Oriental
Research Institute,
Poona
June 17, 1983.

Pandit Shripad Dattatreya Deodhar Shastri

(1869 – 1946)

Pandit Deodhar Shastri was born at Tasgaon, Dist. Sangli, Maharashtra, in the year 1869 in a family of Vaidikas, Shastris, and Vaidyas. He had his early education at Tasgaon and later studied at the Rajaram High School, Kolhapur, from where he matriculated in 1892. He won the much-coveted Jagannath Shankarshet Sanskrit Scholarship. This enabled him to prosecute his further studies at the Rajaram College, Kolhapur. But, owing to the family circumstances, he had to discontinue his studies and seek service as a Sanskrit teacher, first at Ahmednagar (1896-98) and then at Sangli. He taught Sanskrit at the Sangli High School for the next thirty-five years. During this period he also used to coach a few select promising students at home without taking a single pie from them.

Panditji's efforts soon bore fruit, when, in the year 1905, a student of his from a nearby village, K. N. Dikshit, won the first Jagannath Shankarshet Sanskrit Scholarship and thereby brought name and fame to himself, his teacher, and his school. This young Sanskritist later became Rao Bahadur K. N. Dikshit, Director-General of Archaeology, Government of India. Till then, the prestigious Jagannath Shankarshet Sanskrit Scholarship had been practically monopolised by students from Poona, Ratnagiri, and Bombay. Encouraged by Dikshit's success, Deodhar Shastri continued his efforts, year after year, but had to wait for twelve long years for another notable achievement, when, in 1917, V. P. Limaye, his student from Sangli itself, stood first in Sanskrit at the Matriculation examination and won the Scholarship. He was followed in the twenties by G. R. Palkar and N. K. Dravid. Shastriji's work of guiding and coaching students was thereafter taken up by Pandit Patil Shastri, Sanskrit teacher at the newly started City High School of Sangli. His student, R. K. Ranade,

won the Scholarship and brought distinction to himself, his teacher, and the new High School.

Pandit Deodhar Shastri retired from active service in 1933, at the age of 64. On that occasion, he was honoured by his past students and admirers and was presented with an address and a purse, at the hands of H. H. the Rajasaheb of Sangli. Shastriji returned the purse, adding to it his own mite, for instituting scholarships for students standing first in the High Schools of the region. Patil Shastri took over the post vacated by Deodhar Shastri in the Sangli High School. His place in the City High School was taken over by Keshavrao Dikshit, a former student of Deodhar Shastri. Under Keshavrao Dikshit, the City High School rose to eminence in Sanskrit studies, and a succession of over ten students brought the distinction of Jagannath Shankarshet Sanskrit Scholarship to Sangli. The *Guru-śiṣya-paramparā* was thus eminently maintained.

After his retirement in 1933, Deodhar Shastri taught at the newly started Girls' High School. He also taught at the Anatha Vidyarthi Ashrama, Sangli. Shastriji rarely left Sangli. In 1939, he was specially invited to Baroda and was suitably honoured by the citizens there. On his way back from Baroda he made a brief halt at Poona to meet his old students. The last time Shastriji visited Poona was in 1944 when he delivered a public lecture.

Pandit Deodhar Shastri passed away peacefully, at Sangli, in 1946.

ACKNOWLEDGEMENTS

It is a pleasure to express my sincere gratitude to Professor R. N. Dandekar not only for inviting me to give the first series of the Pandit Shripad Shastri Deodhar Memorial Lectures but also for demonstrating admirable patience in waiting for the final script of the lectures, which, due to circumstances neither of us could foresee, I could submit to him only after some delay. Ācārya V. P. Limaye, Professor A. M. Ghatage, and Professor S. D. Joshi did me the honor of presiding over the lectures, for which I thank them heartily. I wish also to express my deep appreciation to my student Elliot M. Stern for his careful reading and correction of the script.

George Cardona

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It is a pleasure to express my sincere gratitude to Professor R. M. Dandekar not only for inviting me to give the first series of the Prabhu Shripad Shastri Dendekar Memorial Lectures but also for demonstrating admirable patience in waiting for the final script of the lectures, which, due to circumstances neither of us could foresee, I could submit to him only after some delay. A. V. P. Limaye, Professor A. M. Chitambar, and Professor S. D. Joshi did me the honor of presiding over the lectures, for which I thank them heartily. I wish also to express my deep appreciation to my student Elliot M. Stern for his careful reading and correction of the script.

George Candona

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PRIMARY SOURCES AND ABBREVIATIONS

[Note : For bibliographic details not given here concerning works on grammar and allied areas, see *Pāṇini, a survey of research* (Trends in Linguistics, state-of-the-art reports, 6), The Hague-Paris : Mouton, 1976; reprinted : Delhi : Motilal Banarsidass, 1980]

A : *Aṣṭādhyāyī*.

AK : *Amarakośa*. Edited with Kṣīrasvāmin's commentary by K. G. Oka; Poona, 1913. (Reprinted : Delhi-Varanasi : Upāsanā Prakāshan, 1981). [References according to this edition.]

With the unpublished South Indian commentaries *Amara-padavivṛti* of Liṅgayasūrin and the *Amarapadapārijāta* of Mallinātha, edited by A. A. Ramanathan (Adyar Library Series 101); volumes 1, 2 : Adyar, 1971, 1978.

With the *Padacandrikā* by Rāyamukūṭa, edited by K. K. Dutta; volume 1, 2; Calcutta : Sanskrit College, 1966, 1973.

With the *Rāmāśramī* of Bhānuji Dīkṣita, edited by Hara-govinda Śāstrī (Kashi Sanskrit Series 198); Varanasi : Chowkhamba, 1970.

Arthaśāstra : *The Kauṭīliya Arthaśāstra*, part I : A critical edition with a glossary, by R. P. Kangle; Bombay : University of Bombay, 1960.

ĀS : *Āpīśalaśikṣā*, Yudhiṣṭhira Mīmāṃsaka's edition.

AV : *Atharvaveda*.

Bh., Bhāṣya : *Mahābhāṣya*, Kielhorn's edition revised by K. V. Abhyankar.

Bhairavī : See Prauḍh.

BŚŚ : *Bṛhacchabdenduśekhara* of Nāgeśa.

- Chāyā : Vaidyanātha's *Chāyā*, in the first volume of the Nirṇaya-sāgara Press edition of the Mahābhāṣya.
- Dīpikā : Bhartṛhari's *ṭikā* on the Mahābhāṣya, edited by K. V. Abhyankar and V. P. Limaye.
- Gadā : See PISb.
- GBr. : *Gopathabrāhmaṇa*.
- JS : Jaiminisūtra, in *Jaiminipraṇiṭam mīmāṃsādarśanam* ... (Ānandāśrama Sanskrit Series 97); Pune, 1976 (vol. 1), 1970-1974 (vols. 2-7).
- Kās : Vāmana and Jayāditya's *Kāśikāvr̥tti*, edited by Aryendra Sharma, Khanderao Deshpande, and D. G. Padhye.
- Kāvya prakāśa : *Kāvya prakāśa* of Mammaṭa with the *Bālābodhini* of Vamanacharya Jhalakikar; Poona : Bhandarkar Oriental Research Institute, 1965.
- Kuvalayānanda : *Kuvalayānanda* of Appayadikṣita, with the Alaṅkārasurabhi Hindi commentary of Bholashankar Vyasa (Vidyabhawan Sanskrit Granthamālā 24); Varanasi : Chowkhamba Vidyabhawan, 1963.
- LM : Nāgeśa's *Vaiyākaraṇasiddhāntalaghumañjūṣā*, edited by Mādhava Śāstrī Bhaṇḍārī.
- Mahābhāṣya : see Bh.
- Nirukta : Yāska's *Nirukta*, edited by Lakshman Sarup.
- Niruktabhāṣya : Durga's *Niruktabhāṣya*, in *Durgācāryakṛtāvr̥ttisametam niruktam*, edited by V. K. Rajavade (Ānandāśrama Sanskrit Series 88); 2 volumes, Poona, 1921, 1926.
- Niruktabhāṣyaṭīkā : Maheśvara's *Niruktabhāṣyaṭīkā*, edited by Lakshman Sarup.
- NS : Nyāyasūtras, in *Śrīgautamamunipraṇiṭanyāyasūtrāṇi*, edited by D. N. Joshi (Ānandāśrama Sanskrit Series 91); Poona, 1922.
- Nyāsa : Jinendrabuddhi's *Kāśikāvivarāṇapañcīkā*, edited by Dwarika Das Shastri and Kalika Prasad Shukla.

- PIŚ : Nāgeśa's *Paribhāṣenduśekhara*. PIŚa : K. V. Abhyankar's edition. PIŚb : with Vaidyanātha's *Gadā*, edited by Gaṇeśa-śāstrī Gokhale (Ānandāśrama Sanskrit Series 72); Pune, 1978.
- PLM : *Vaiyākaraṇasiddhāntaparamalaghumañjūṣā*, edited with a Hindi translation by Kapiladeva Shastri; Kurukshetra : Kurukshetra University Press, 1975.
- PM : Haradatta's *Padamañjarī*, edited by Dwarika Das Shastri and Kalika Prasad Shukla.
- Pr. : Kaiyaṭa's *Pradīpa*, in the Rohatak edition of the Mahābhāṣya.
- Prauḍh. : Bhaṭṭoji's *Prauḍhamanoramā*, with the *Laghuśabdaratna*, *Bhairavī*, *Bhāvaprakāśa*, and *Saralā*, edited by Gopāla Śāstrī Nene.
- RA : Dharmakīrti's *Rūpāvatāra*, edited by Rao Bahadur M. Rangacharya.
- Ratnaprakāśa : Śivarāmeṇdra Sarasvatī's *Mahābhāṣyasiddhāntaratnaprakāśa*, in *Mahābhāṣyapradīpavyākhyānāni*, edited by M. S. Narasimhacharya.
- RPr. : *Ṛgvedapratīśākhya*, edited by Mangala Deva Shastri.
- RV : *Ṛgveda*
- Śabdaratna : See Prauḍh.
- ŚBh. : Śābarabhāṣya, in*mīmāṃsādarśanam*; see JS.
- ŚBr. : *Śatapathabrāhmaṇa*
- SD : Pārthasārathi's *Śāstradīpikā*, with the *Yuktisnehaprapūraṇī*, edited by Dharmadattasūri; volume 1, Bombay : Nirṇaya Sagar Press, 1915.
- Śekhara : Nāgeśa's *Laghuśabdenduśekhara*, edited by Nandkishore Shastri.
- SK : Bhaṭṭoji's *Śabdakaustubha*.
- ŚIV : Kumārila's *Ślokaavarttika* with Pārthasārathi's *Nyāyaratnākara*, edited by Dvārikādāsa Śāstrī (Prāchyabhārati Series, 10); Varanasi : Tara Publications, 1978.

- SR : *Laghuśabdaratna*; see Prauḍh.
- Śr. Pra. : Bhoja's *Śṛṅgāraprakāśa*, edited by G. R. Josyer; 4 volumes; Mysore : Coronation Press, 1955–1969.
- SV : *Śākaṭāyanavyākaraṇa*, edited by Shambunath Tripathi.
- SHŚ : *Siddhahemaśabdānuśāsana*, edited with the *Tattvaparakāśikā* and *Śabdamahārṇavanyāsa* by Vijayalāvaṇyasūri (Śrīvijayanemisūrigranthamālā, 33), volume 1; Rajnagar : Jainagrantha-prakāśakasabhā, vikramasaṃvat 2007.
- SK : Bhaṭṭoji's *Siddhāntakaumudī*, edited by Giridhara Śarmā Caturveda and Parameśvarānanda Śarmā Bhāskara.
- Sphoṭavāda : Nāgeśa's *Sphoṭavāda*, edited by V. Krishnama-charya.
- TPr. : *Taittirīyaprātiśākhya*, with Somayārya's *Tribhāṣyaratna* and Gārgya Gopālayajvan's *Vaidikābharṇa*, edited by K. Rangacharya and R. Shama Sastri (Bibliotheca Sanskrita, 33); Mysore : Government Branch Press, 1906.
- TS : *Taittirīyasaṃhitā*
- Ud. : Nāgeśa's *Mahābhāṣyapradipoddyota*, in the Rohatak edition of the Mahābhāṣya.
- VBh. : Kaunḍabhaṭṭa's *Vaiyākaraṇabhūṣaṇa*, edited by K. P. Trivedi. [Bhaṭṭoji's *Vaiyākaraṇasiddhāntakārikāḥ* numbered as in this edition.]
- VBhS : *Vaiyākaraṇabhūṣaṇasāra*, edited by Tarkeshwar Chaturvedi Shastri.
- VP : Bhartṛhari's *Vākyapadīya* : VPa : Bhartṛhari's *Vākyapadīya*. Die mūlakārikās nach den Handschriften herausgegeben und mit einem pāda-Index versehen von Wilhelm Rau (Abhandlungen für die Kunde des Morgenlandes XLII, 4); Wiesbaden, 1977. [kārikās cited and numbered according to this edition even when referring to commentaries.] VPb : K. A. Subramania Iyer's edition of the first kāṇḍa with the *Vṛtti* and *Paddhati*. VPc : Raghunātha Śarmā's edition of the second kāṇḍa, with the *Vṛtti*, Puṇyarāja's *ṭīkā*, and Raghu-

nātha's *Ambākarṭī*. VPd : K. A. Subramania Iyer's edition of the third kāṇḍa, through the Sādhanaśamuddeśa, with Helārāja's *Prakīrṇaprakāśa*. VPe : K. A. Subramania Iyer's edition of the third kāṇḍa, part II, with Helārāja's commentary.

VPr. : *Vājasaneyīprātiśākhya* of Kātyāyana. *The Śuklayajuh-prātiśākhya of Kātyāyana, critically edited from original manuscripts with English translation of the text* by Indu Rastogi (Kashi Sanskrit Series 179); Varanasi : Chowkhamba, 1967. [Numbering of sūtras according to this edition.] Edited, with the commentaries of Uvaṭa and Anantabhaṭṭa, by V. Venkatarama Sharma (Madras University Sanskrit Series, 5); Madras, 1934.

VS : *Vājasaneyīsaṃhitā*

VSK : Bhaṭṭoji's *Vaiyākaraṇasiddhāntakārikāḥ*; see VBh.

VSM : Nāgeśa's *Vaiyākaraṇasiddhāntamañjūṣā*, edited by Kālikā Prasāda Śukla (M. M. Sivakumāraśāstrī-granthamālā, 3); Varanasi : Sampurnanand Sanskrit Vishvavidyalaya, 1977.

Uttara's *Abhidharma*. VFD : K. A. Subramania Iyer's edition of the third *kāṇḍa*, through the *Siddhantaśāstra*, with Helaraja's *Prakāśanā*. VPE : K. A. Subramania Iyer's edition of the third *kāṇḍa*, part II, with Helaraja's commentary.

VPR : *Kāśikāśāstrīyā* of Kāśyapa. The *Sūtraśāstra* and *śāstrīyā* of Kāśyapa, critically edited from original manuscripts with English translation of the text by Indu Rastogi (Kāśikā Sanskrit Series 17); Varanasi : Chowkhamba, 1967. [Numbering of others according to this edition.] Edited with the commentary of Uvāṇa and Anantashakti, by V. Venkataratnam Sharma (Madras University Sanskrit Series 2); Madras, 1934.

VSR : *Vijñānaśāstra*.

VSK : Bhāṣya's *Vijñānaśāstra*; see VBR.

VSM : Nāgārjuna's *Vijñānaśāstra*, edited by Kāśikā Prabhākar (M. M. Sivakumārācārīya); 3 vols. Varanasi : Sampurnanand Sanskrit Vidyapeeth, 1977.

LECTURE I

PHONETICS AND PHONOLOGICAL RULES IN GRAMMARS

1. Introduction

1. 1. In his Aṣṭādhyāyī Pāṇini treats Sanskrit phonology thoroughly, but he does not deal with details of how Sanskrit sounds are produced.¹ This is not to say that Pāṇini considers phonetics irrelevant to his grammar. On the contrary, he presupposes that a student of his treatise already has a thorough knowledge of Sanskrit phonetics. This is patent from the following sūtras :

(1) A 1. 1. 9 : तुल्यास्यप्रयत्नं सवर्णम् ।

(2) A 1. 1. 50 : स्थानेऽन्तरतमः ।

The first is a classificatory rule according to which two or more sounds are termed *savarṇa* (' homogeneous ') with respect to each other if they are produced with the same articulatory effort at the same place of production in the oral cavity. That is, sounds which share these properties are classed as homogeneous sounds. This sūtra assumes that one knows the places of production in the oral cavity (*āśya*)² for different Sanskrit sounds and what articulatory efforts (*prayatna*) are involved in producing various sounds at these places. However, Pāṇini does not enumerate or describe these places and efforts in the Aṣṭādhyāyī. Nor does

1. See Pāṇini, *a survey of research*, section III. 1. 5. 4a (pp. 206-208).

2. As Patañjali remarks in the Mahābhāṣya on (1) A 1. 1. 9 (I. 61. 3, cf. Dīpikā 142. 8-9, Pr. I. 195), *āśya* (' mouth ') in its *laukika* value refers to the area between the lips and the Adam's apple. In (1) A 1. 1. 9, however, *āśya* more specifically refers to places of production in the oral cavity (Cf. Bh. I. 61. 24-25).

he list or describe articulatory efforts outside the oral cavity and sound features associated with these. Yet (2) A 1. 1. 50 presuppose a knowledge of these efforts and features. This is a metarule that serves to narrow the choice of two or more possible replacements for a given substituent: that substitute occurs in place of the substituent which is most similar to it, and the degree of similarity is determined by shared features. For example,

(3) A 8. 4. 62: झयो होऽन्यतरस्याम् ।

provides that *h* following a nonnasal stop is optionally replaced by a sound homogeneous with the one that precedes it, thus accounting for sequences such as *tad hi* / *tad dhi*. A sound homogeneous with the *-d* of *tad* 'that' optionally replaces the *h* of *hi* 'for, since'. According to (1) A 1. 1. 9, any dental stop is homogeneous with *d*, so that five sounds are possible substitutes for *h* after *d*: *t th d dh n*. (2) A 1. 1. 50 narrows the choice down to *dh*, the dental stop most similar to *h*: both *dh* and *h* are distinctively voiced consonants (*ghoṣavat*) the production of which involves emitting a relatively greater amount of air (*mahā-prāṇa* 'aspirate') than in producing other consonants. In order to apply (2) A 1. 1. 50, one must know about factors such as glottal aperture, voicing, and aspiration, but the Aṣṭādhyāyī does not describe these or tell one what efforts are involved in articulating what sounds.

1. 2. It is also reasonable to say that Pāṇini knew about alternative descriptions and classifications of sounds and that he chose among them in accordance with general principles he followed in composing his grammar. Let us consider the following.

(4) A 1. 1. 10: नाज्झलौ ।

is an exception to (1) A 1. 1. 9 (section 1. 1): Although two sounds meet the conditions stipulated for being classed as homogeneous, they are not if one of the sounds is a vowel and

the other is a consonant.³ This presupposes that some vowels and consonants do indeed meet the conditions in question. In particular, vowels and spirants can be said to have the same articulatory effort, so that a vowel such as *i* and a spirant such as *ś*, both palatal, are homogeneous sounds by the criteria given in (1) A 1. 1. 9. And this reflects a choice between what I shall call a narrow and a broad description, evidence for which appears in other works.

The most detailed account in ancient texts of how organs are positioned for articulating different Sanskrit sounds appears in *Taittirīyaprātiśākhya*. This text distinguishes two kinds of interaction between an articulator (*karana*) and a place where sounds are produced (*sthāna*), depending on whether the sounds in question are vowels or consonants. With respect to vowels, a place of production is one an articulator is brought close to and an articulator is what a speaker brings close to that place :

(5) TPr. 2. 31 : स्वरानां यत्रोपसंहारस्तत्स्थानम् ।

(6) TPr. 2. 32 : यदुपसंहरति तत्करणम् ।

With respect to other sounds, a place of production is one where contact occurs and an articulator is what a speaker causes to make contact at such a place :

(7) TPr. 2. 33 : अन्येषां तु यत्र स्पर्शनं तत्स्थानम् ।

(8) TPr. 2. 34 : येन स्पर्शयति तत्करणम् ।

For example, the palate (*tālu*) is the place of production for *i*-vowels, the stop set *c ch j jh ṇ*, and the semivowel *y*. The articulation of these sounds is described in

(9) TPr. 2. 22 : तालौ जिह्वामध्यमिवर्णे ।

(10) TPr. 2. 36 : तालौ जिह्वामध्येन चवर्णे ।

3. The abbreviatory terms *aC* and *haL* refer specifically to the vowels *a* *i* *u* *r* *ḷ* *e* *o* *ai* and *au* listed in Pāṇini's *akṣarasamāmnāya* and the consonants of this list; additional details concerning (4) A 1. 1. 10 are not germane to the present discussion.

(11) TPr. 2. 40 : तालौ जिह्वामध्यान्ताभ्यां यकारे ।

To articulate *i*-vowels, one brings the blade of the tongue near the palate; to produce stops of the set *c ch j jh ñ*, one has the tongue blade make contact at the palate; and to pronounce *y*, one has the edges of the tongue blade make contact at the palate. Further, according to

(12) TPr. 2. 44 : स्पर्शस्थानेषूष्माण आनुपूर्व्येण ।

(13) TPr. 2. 45 : करणमध्यं तु विवृतम् ।

the spirants **k ś ṣ s x p*, respectively, are produced at the places given for stops of the groups beginning with *k c ṭ t p*, but with the middle of the articulator kept separated from each place. That is, *ś* is produced with contact at the palate, as in the articulation of *c ch j jh ñ* (10 TPr. 2. 36), only the tongue is now held in such a way that the central part of the blade does not make contact.

On the basis of how different sounds are produced, one could distinguish four kinds of articulatory effort: full contact for stops, slight contact for semivowels, slight aperture for spirants, and full aperture — that is, absence of contact — for vowels. Such a quadripartite system is adopted, for example, in the *Āpiśalaśikṣā* :

(14) ĀŚ 3. 4 : स्पृष्टकरणाः स्पर्शाः ।

(15) ĀŚ 3. 5 : ईषत्स्पृष्टकरणा अन्तस्थाः ।

(16) ĀŚ 3. 6 : ईषद्विवृतकरणा ऊष्माणः ।

(17) ĀŚ 3. 7 : विवृतकरणाः स्वराः ।

On the other hand, the *Ṛkprātiśākhya* adopts a broader system in which only three kinds of effort are distinguished. The four semivowels *y r l v*, listed before *h* in the *Ṛkprātiśākhya*'s *akṣara-samāmnāya*, are described as produced with slight contact :

(18) RPr. 13. 10 : दुस्पृष्टं तु प्राग्धकाराच्चतुर्णाम् ।

The articulation of vowels, anusvāra, and spirants is said to involve an articulator's making no contact but being held (*sthitam* 'remaining') for a time at a place of production :

(19) RPr. 13. 11 : स्वरानुस्वारोष्मणामस्वृष्टं स्थितम् ।

Pronouncing stops is said to involve an articulator's making full but only momentary contact :

(20) RPr. 13. 9 : स्वरमस्थितम् ।

It is obviously impossible to deny that part of the tongue makes some contact with part of the palate when *ś* is pronounced. However, it is true that part of the tongue is separated from that place and that the articulator is held there relatively longer than when palatal stops are pronounced. With a stress on these criteria, then, one can adopt the tripartite system given in the *Rkprātiśākhya*. Moreover, (4) A 1. 1. 10 shows that Pāṇini too adopted such a broad system.

1. 3. Since Pāṇini assumes of his students a knowledge of Sanskrit phonetics, it is clear that for him a grammar like the *Aṣṭādhyāyī* is to be studied by those who have already acquired expertise in phonetics. As Patañjali puts it, grammar is a later science, which a student is capable of studying with understanding only after he has been instructed in treatises associated with Vedic texts, so that he knows the places where sounds are produced, the articulators involved, and ways in which sounds are produced at places in the oral cavity together with efforts outside the oral cavity.⁴ That is, a traditional student of Pāṇini's grammar in Patañjali's time had already completed a course of Vedic study⁵ during which he took up phonetics as taught in *prātiśākhya* and *śikṣā* works.⁶

4. Mahābhāṣya on A 1. 2. 32 (I. 208, 19-20) : व्याकरणं नामेयमुत्तरा विद्या । सोऽसौ छन्दःशास्त्रेभ्योऽप्युपलब्ध्यावगन्तुमुत्सहते ।

5. Ratnaprakāśa IV. 36 : उत्तरा विद्या (Bh. I. 208, 19) इति । वेदाध्ययनोत्तर-मिदानीं व्याकरणमधीयत इति कृत्वैवमुक्तम् । See also section 5.

6. Nāgeśa remarks (Ud. II. 49) that by *chandahśāstresu* of the passage cited in note 4 Patañjali means works such as *prātiśākhya*s and *śikṣā*s : छन्दःशास्त्रेषु प्रातिशाख्यशिक्षादिषु ।

1. 4. Śikṣā treatises deal with phonetics, teaching how sounds are pronounced.⁷ In particular, śikṣā as a vedāṅga is concerned with the proper pronunciation of Vedic mantras.⁸ It is well known, however, that treatments of Sanskrit phonetics are not limited to general śikṣā works such as the Āpiśalaśikṣā. Prātiśākhyaas such as the Rkprātiśākhya and the Taittirīyaprātiśākhya also contain sections dealing with the production of sounds [see (5) TPr. 2. 31-(13) TPr. 2. 45, section 1. 2]. But these treatises are also concerned more specifically with relating the padapāṭha and saṁhitāpāṭha of Vedic texts by means of phonological rules.

In what follows I shall consider some instances of the interplay of phonetics and phonology, both in texts that explicitly deal with phonology and in works usually considered to deal purely with phonetics.

2. Let us consider first a distinction between voiced and voiceless segments that is required for phonological reasons.

2. 1. The Taittirīyaprātiśākhya describes how, in the production of sounds, a primitive sound element arises in the area between the chest and the throat, due to the movement of breath in the body. The air that constitutes this primitive sound element is changed to three varieties as it passes through the glottis. If the glottis is close, the variety called *nāda* is produced; if the glottis is open, the variety called *śvāsa* is produced; and if the glottis is midway between close and open, a third variety, called *hakāra*, is produced :

(21) TPr. 2. 4 : संवृते कण्ठे नादः क्रियते ।

7. See, for example, Liṅgayasūrin on Amarakośa 1. 6. 5 (शिक्षयतेऽनया वर्णादि शिक्षा । cf. Padacandrikā, p. 195 and Rāmāśramī, p. 83 on the same Amarakośa passage), Sāyaṇa on Taittirīyopaniṣad 1. 2 (शिक्षा शिक्षयतेऽनयेति वर्णाद्युच्चारण-लक्षणम् ।).

8. PM L. 7 : शिक्षाप्यध्ययनकाले कर्मणि च मन्त्राणामुच्चारणप्रकारं प्रतिपादयति । Cf. Maheshvara's Niruktabhāṣyaṭīkā p. 3, Durga's Niruktabhāṣya p. 1.

(22) TPr. 2. 5 : विवृते श्वासः ।

(23) TPr. 2. 6 : मध्ये हकारः ।

These three are the original matter of which individual articulated sounds are made :

(24) TPr. 2. 7 : ता वर्णप्रकृतयः ।

According to

(25) TPr. 2. 8 : नादोऽनुप्रदानं स्वरघोषवत्सु ।

(26) TPr. 2. 9 : हकारो हचतुर्थेषु ।

(27) TPr. 2. 10 : अघोषेषु श्वासः ।

the material that goes into making up vowels and unaspirated voiced consonants is *nāda*, for *h* and voiced aspirated stops it is *hakāra*, and voiceless consonants have *śvāsa* for their basic material.

2. 2. From what is said in (25) TPr. 2. 8 (section 2. 1) it is clear that the Taittirīyaprātiśākhya recognizes an obvious fact : Vowels and unaspirated voiced consonants are phonetically similar, sharing a basic stuff. On the other hand, the Taittirīyaprātiśākhya makes a distinction in terminology which segregates these voiced elements : the term *ghoṣavat* refers to voiced consonants, including *h* and aspirated stops, but not also to vowels. This is patent not only from (25) TPr. 2. 8, where *svara* 'vowel' and *ghoṣavat* are used in the compound *svaraghoṣavatsu*, but also from classificatory rules of the same text. According to

(28) TPr. 1. 12 : ऊष्मविसर्जनीयप्रथमद्वितीया अघोषाः ।

(29) TPr. 1. 13 : न हकारः ।

(30) TPr. 1. 14 : व्यञ्जनशेषो घोषवान् ।

consonants have either of the class names *ghoṣavat*, *aghoṣa*. By (28) TPr. 1. 12, consonants called *ūṣman*, the sound *h*, and the first and second members of stop sets — that is, voiceless unaspirated and voiceless aspirated stops — are called *aghoṣa*. The *ūṣman* class of the Taittirīyaprātiśākhya consists, according to

(31) TPr. 1. 9 : परे षड्भ्रमाणः ।

of the six consonants listed after the semivowels *y r l v* in the *akṣarasamāmnāya* adopted in this work *ṛ k ś ṣ s ṣ p h*. (28) TPr. 1. 12 would thus let *h* belong to the *aghoṣa* class. However, (29) TPr. 1. 13, an exception to the preceding sūtra, disallows this classification : *h* is not called *aghoṣa*. This sound is thereby relegated to the group of consonants that make up a remainder in respect of those called *aghoṣa*. By (30) TPr. 1. 14, any such remaining consonant has the class name *ghoṣavat*.

The term *ghoṣavat* is a derivate of the type *dhūmavat* 'in or on which there is smoke' : It refers to sounds in which there is something called *ghoṣa*. The negative compound *aghoṣa* denotes sounds that lack *ghoṣa*. Now, this *ghoṣa* is distinct from *nāda*. The latter is the material which makes up vowels and *ghoṣavat* according to (25) TPr. 2. 8, but *ghoṣa* pertains only to consonants, since, by (30) TPr. 1. 14, only consonants are called *ghoṣavat*. In addition, *nāda* refers to a variety of air flow associated with glottal closure [see (21) TPr. 2. 4, section 2. 1], but *ghoṣa* as used in the Taittirīyaprātiśākhya is not a comparable phonetic term. (21) TPr. 2. 4 is one of a set of statements concerning the physical production of sounds, but the Taittirīyaprātiśākhya has no comparable statement about *ghoṣa*. (30) TPr. 1. 14 is a classificatory rule that does not directly concern phonetics. Nor is it possible to consider that *ghoṣa* denotes some resonance particular to voiced consonants that distinguishes these phonetically from vowels. Recall what is said in (25)-(26) TPr. 2. 8-9. The first is a general statement according to which *nāda* is the matter that goes into vowels and voiced consonants (*svaraghoṣavatsu*) in general. The second is an exception to the first in respect of certain voiced consonants : *hakāra* is the matter that makes up *h* and voiced aspirated stops (*hacaturtheṣu*). Clearly, these do not support the assumption that voiced consonants have a particular resonance called *ghoṣa*. Nor does what the Taittirīyaprātiśākhya says about how organs are positioned for articulating given sounds justify such an assump-

tion. The text does not speak of certain spirants having articulators [see (12)-(13) TPr. 2. 44-45, section 1. 2], but

(32) TPr. 2. 46 : कण्ठस्थानौ हकारविसर्जनीयौ ।

does not mention any articulator for *h* or *ḥ*. This sūtra simply says that these consonants have the pharyngeal area (*kaṇṭha* 'throat') as their places of production. That is, producing *h* and *ḥ* does not characteristically involve an active articulator making contact with or approaching a place. Thus, *h* is phonetically like a vowel in that its production does not involve contact of an articulator at any place. In addition, *h* is voiced. Yet *h* is called *ghoṣavat* and vowels are not.

2. 3. The distinction made between *nāda* and *ghoṣa* is clearly not prompted by phonetic considerations, but it certainly is justified in terms of phonology. Consonants are either voiced or voiceless, but there are no voiceless vowels in Sanskrit, and there are distinct contexts for different phonologic operations stated in rules that require terms referring to voiced consonants separated from vowels. Consider some rules from the Taittiriya-prātiśākhya. Sūtras under the heading

(33) TPr. 8. 5 : अथ विसर्जनीयः ।

state changes which *-ḥ* undergoes. By

(34) TPr. 9. 2 : अघोषपरस्तस्य सस्थानमूष्माणम् ।

-ḥ followed by a voiceless consonant changes to a spirant homorganic with that consonant. For example, the padapāṭha for TS 1. 7. 9. 1, 1. 3. 14. 8 has वाजः । च । अग्निः । शुचिब्रततम् इति शुचिब्रत-
तम् ।, with the prepause forms *vājah*, *agniḥ*; in the saṃhitā-pāṭha one has वाजश्च and अग्निश्शुचिब्रततम्; with *-ś* before *c-* and *ś-*.

(34) TPr. 9. 2 accounts for such correspondences by letting *-ḥ* be changed to spirants homorganic with following voiceless consonants. According to

(35) TPr. 9. 7 : ओकारमः सर्वोऽकारपरः ।

the whole of *-aḥ* changes to *-o* before *a-*, and

(36) TPr. 9. 8 : घोषवत्परश्च ।
provides that the same applies to *-ah* followed by a voiced consonant; e. g. पुरः । अग्निः । भव । → पुरो अग्निर्भव (TS 4. 6. 5. 1), सुवः । रोहाव । → सुवो रोहाव (TS 1. 7. 9. 1). (36) TPr. 9. 8 is an exception to the more general rule

(37) TPr. 9. 9 : अवर्णपूर्वस्तु लुप्यते ।

whereby *-h* preceded by any *a*-vowel, whether short or long, is deleted before a voiced consonant. In accordance with the convention that an exception takes precedence over a related general rule, then, deletion before voiced consonants applies only to *-h* preceded by *ā*, not to *h* preceded by short *a*; e. g., देवाः । गातु-विदः । गातुम् । विच्चा । → देवा गातुविदो गातुं विच्चा (TS 1. 1. 31. 3). In addition,

(38) TPr. 9. 10 : अथ स्वरपरो यकारम् ।

provides that *-h* preceded by any *a*-vowel changes to *-y* before a vowel. The *-y* of *-āy* is then deleted according to

(39) TPr. 10. 19 : लुप्येते त्ववर्णपूर्वौ यवकारौ ।

For example: आपः । उन्दन्तु → आपंय् उन्दन्तु → आप उन्दन्तु (TS 1. 2. 1. 1).⁹ Now, in accordance with what is said in (25)–(26) TPr. 2. 8–9 (section 2. 1), let us reformulate (36) TPr. 9. 8 using *nādahakāravat* (‘a sound with *nāda* or *hakāra*’) instead of *ghoṣavat*:

(36*) नादहकारवत्परश्च ।

Similarly, let us reword (38) TPr. 9. 10 using *nādavatparaḥ* (‘followed by a sound with *nāda*’) instead of *svraparaḥ* (‘followed by a vowel’):

9. In sūtras following (39) TPr. 10. 19 details are given about dialects in which *-y* and *-v* are not deleted before vowels. These need not be considered here. It is sufficient to note that in some dialects and schools of recitation one had words like *āpay* before vowels, so that the change provided for by (38) TPr. 9. 10 is required. See also note 25.

(38*) अथ नादवत्परो यकारम् ।

It is easy to see that the alternative sūtras are not acceptable. (36*) would allow the change of *-aḥ* to *-o* not only before voiced consonants but also before vowels, which have *nāda* as their basic matter, hence are included among the referents of *nādavāt*. Moreover, (38*) would wrongly permit converting *-ḥ* to *-y* not only before vowels but also before voiced unaspirated consonants. Clearly, phonetically based class names such as *nādavāt* are not sufficient for the proper formulation of phonological rules.

As can be seen from such instances, the use of *ghoṣavat* and *aghoṣa* with reference to voiced and voiceless consonants is based on phonological criteria. Prātiśākhya works properly distinguish between phonetic entities like *nāda* or *śvāsa* and sets of sounds in respect of phonological operations.¹⁰

3. Phonological considerations may also require a grammarian to adopt conventions which are not strictly in accordance with phonetics.

3. 1. A well known instance of this situation concerns the vowels *a* and *ā* of Sanskrit. Pairs of short and long vowels such as *i ī*, *u ū* are sets of homogeneous (*savarṇa*) sounds in terms of the criteria given in (1) A. 1. 1. 9 (section 1. 1). In addition, sequences *īī*, *ūū* and such are not allowed. Instead, one has single long vowels *ī*, *ū*, etc. Accordingly,

(40) A 6. 1. 101 : अकः सवर्णे दीर्घः ।

provides that *ī ū ṛ* and a following homogeneous vowel are both replaced by a single long vowel.¹¹ Similarly,

10. I have treated the evidence supporting to this conclusion more extensively in 'Phonology and phonetics in ancient Indian works : the case of voiced and voiceless elements', appearing in the Proceedings of the Second International Conference on South Asian languages and Linguistics, held at Osmania University, Hyderabad, 9-11 January 1980.

11. (40) A 6. 1. 101 is one of a set of rules whereby a single sound replaces two; the group of sūtras is headed by A 6. 1. 84 : एकः पूर्वपरयोः ।

(41) VPr. 4. 50 : सिं सवर्णे दीर्घम् ।

provides that a vowel of the *sim* set and a following homogeneous vowel are both changed to a single long vowel.¹² According to

(42) VPr. 1. 44 : सिमादितोऽष्टौ स्वराणाम् ।

the first eight vowels of the Vājasaneyiprātiśākhya's *akṣarasamāmnāya* are called *sim*. These sounds are *a ā i ī u ū ṛ ṝ*. By the criteria given in

(43) VPr. 1. 43 : समानस्थानकरणास्यप्रयत्नः सवर्णः ।

i ī u ū, and *ṛ ṝ* are pairs of homogeneous (*savarṇa*) sounds. This sūtra states that a sound is termed *savarṇa* with another if it has the same place of production, and articulatory effort as that sound. According to these criteria, however, *a* and *ā* are not homogeneous sounds, since the former is a close (*saṃvṛta*) vowel and the latter is an open (*vivṛta*) vowel. Nevertheless, one has *ā* from sequence in which short or long *ā* is contiguous with *ā*, just as *īī* and *ūū* give *ī* and *ū*. Hence,

(44) VPr. 1. 72 : सवर्णवच्च ।

provides that *a* and *ā* are treated as though they were homogeneous sounds, so that (41) VPr. 4. 50 applies also to *āā*. Now the abbreviation *aK* (abl. sg. *akaḥ*) used in (40) A 6. 1. 101 denotes¹³ *a i u ṛ ṝ* of Pāṇini's *akṣarasamāmnāya*. In addition, vowels of this sound catalog are used as class names denoting sets of homogeneous vowels,¹⁴ so that *i u ṛ ṝ* refer to the sets of *i*-, *u*-, *ṛ*-, and *ṝ*-vowels. Thus, (40) A 6. 1. 101 provides for *ī* and *ū* as the single replacements for sequences *īī* and *ūū*. This sūtra should also let *ā* replace *āā*. However, *a* and *ā* are not *savarṇa* sounds by the criteria given in (1) A 1. 1. 9. Moreover, the Aṣṭādhyāyī lacks a sūtra equivalent to (44) VPr. 1. 72.

12. (41) VPr. 4. 50 comes under the heading VPr. 4. 49 : अथैकमुत्तरश्च । comparable to A 6. 1. 84 (note 11).

13. By A 1. 1. 71 : आदिरन्येन सहेता ।

14. according to A 1. 1. 69 : अणुदित्सवर्णस्य चाप्रत्ययः ।

On the other hand, if the convention is adopted that *a* taught in Pāṇini's *akṣarasamāmnāya* is an open vowel, this sound can refer, by A 1. 1. 69 (see note 14), to *ā*, a member of the set of *a*-vowels.¹⁵ Pāṇini does indeed operate with this convention, as can be seen from the final sūtra of the Aṣṭādhyāyī :

(45) A 8. 4. 68 : अ अ ।

This serves to reinstate *a* in its true value of a close vowel. In the rest of the Aṣṭādhyāyī, Pāṇini has, for phonological reasons, treated short *a* as an open vowel.

3. 2. Let me now consider *e o ai au* in the context of how phonetic and phonologic factors interact.

3. 2. 1. The Taittirīyaprātiśākhya describes in detail how organs are positioned for pronouncing *e* and *o*. After saying that the lips and jaws are neither excessively drawn together nor excessively apart for pronouncing *a*-vowels,¹⁶ this text goes on to say that in producing *o* also the jaws are not drawn apart very much but that the lips are brought quite close to each other :

(46) TPr. 2. 13 : ओकारे च ।

(47) TPr. 2. 14 : ओष्ठौ तूपसंहततरौ ।

To produce *e*, the lips are slightly spread, the jaws brought rather close to each other, and one lets the edges of the tongue blade touch the upper molars :

(48) TPr. 2. 15 : ईषत्प्रकृष्टावेकारे ।

(49) TPr. 2. 16 : उपसंहततरं हनू ।

(50) TPr. 2. 17 : जिह्वामध्यान्ताभ्यां चोत्तराक्षमभ्यान् स्पर्शयति ।

In addition, as the blade of the tongue is brought near the palate to pronounce *i*-vowels [see (9) TPr. 2. 22, section 1. 2], so also is it brought near the palate to produce *e* :

15. Vārttika 1 on Sivasūtra 1 : अकारस्य विवृतोपदेश आकारग्रहणार्थः ।

16. TPr. 2. 12 : अवर्णे नात्युपसंहतमोष्ठदनु नातिव्यस्तम् । That is, short *a* is close but not excessively so and *ā* is open but not excessively so. Details concerning how TPr. 2. 12 is to be interpreted do not affect the present discussion,

(51) TPr. 2. 23 : एकारे च ।

In less detailed accounts, *e* and *o* are said to be produced at the palate and lips, respectively. For example :

(52) VPr. 1. 66 : इचशेयास्तालौ ।

(53) VPr. 1. 70 : उवो × पूषा ओष्ठे ।¹⁷

Such descriptions agree, nevertheless, in treating *e* and *o* as monophthongs.

3. 2. 2. On the other hand, *ai* and *au* are acknowledged to be diphthongal. According to

(54) VPr. 1. 73 : ऐकारौकारयोः कण्ठ्या पूर्वा मात्रा ताल्वोष्ठयोरुत्तरा ।

the first mora of bimoric *ai*, *au* is a pharyngeal segment and their second halves are produced at the palate and lips, respectively. That is, *ai* and *au* consist of *a*-like segments¹⁸ combined with palatal and labial vocalic segments.¹⁹ Other texts agree on this point, but there are differences concerning just how much of each diphthong has what quality. According to (54) VPr. 1. 73, the components have the duration of one mora each, but

17. VPr. 1. 66, 70 also state that *i*-vowels, consonants of the *c* stop series, *ṣ* and *y* are produced at the palate and that *u*-vowels, *v*, upadhmāṇiya, and stops of the *p* series are pronounced at the lips.

18. Cf. VPr. 1. 71 : अहविसर्जनीयाः कण्ठे ।

19. In their commentaries on (54) VPr. 1. 73, Uvaṭa and Anantabhaṭṭa say the palatal and labial segments are *e* and *o* : Uvaṭa : उत्तरा प्रथमस्य तालुस्थाना । एकार इत्यर्थः । तद्यथा अ ए ऐ इति । द्वितीयस्योत्तरा ओष्ठस्थाना । ओकार इत्यर्थः । तद्यथा अ ओ औ इति । Anantabhaṭṭa : प्रथमस्योत्तरा एकाररूपा तालुस्थाना । द्वितीयस्योत्तरा ओकाररूपा ओष्ठस्थाना । This is obviously different from what is said in other texts, such as (56) – (57) TPr. 2. 28–29. It is difficult to tell whether what Uvaṭa and Anantabhaṭṭa say reflects a real pronunciation of *ai* and *au* with second segments that are lower than *i* and *u* or is motivated by systemic considerations : *ai* and *au* are the single substitutes for sequences *ae* and *ao*. I suspect the latter, especially in view of Uvaṭa's saying *tadyathā*..., although I cannot prove this.

(55) TPr. 2. 26 : अकारार्धमैकारौकारयोरादिः ।

(56) TPr. 2. 28 : इकारोऽध्यर्धः पूर्वस्य शेषः ।

(57) TPr. 2. 29 : उकारस्तूत्तरस्य ।

give a different distribution: The first part of *ai*, *au* is an *a*-like segment that lasts for only half a mora (*akārārdham* 'half an *a*'); the remainder of the former is an *i*-like segment lasting one and one-half morae (*ikāro'dhyardhaḥ* 'one and one-half *i*'), and the remainder of the latter is an *u*-like segment of the same duration.²⁰

3. 2. 3. There is no cogent reason for attributing the difference between (54) VPr. 1. 73 and (55)-(57) TPr. 2. 26-29 to anything other than dialect variation: *ai* and *au* were pronounced variously in different dialects.²¹ The Taittirīyaprātiśākhya notes another dialectal difference. According to some, the first segment of *ai* and *au* is a closer vowel than *a*:

(58) TPr. 2. 27 : संवृतकरणतरमेकेषाम् ।

That is, in some dialects the *a*-like segment of *ai*, *au* is a closer element than the separate vowel *a*, and in other dialects the two have the same quality.²²

3. 2. 4. Since *e*, *o* are respectively palatal and labial and *ai*, *au* also contain palatal and labial segments, it is possible, without doing injustice to the phonetic facts, to adopt a broad system in which *e*, *ai* are both described as palatal and *o*, *au* are both described as labial. The R̥kprātiśākhya adopts such a broad system. According to

(59) RPr. 1. 42 : तालव्यावेकारचकारवर्गाविकारैकारौ यकारः शकारः ।

(60) RPr. 1. 47 : शेष ओष्ठयोऽपवाद्य नासिक्यान् ।

20. See also note 23 and section 3. 2. 10 with notes 49, 51.

21. As reflected in various schools of recitation. See also note 19.

22. The Vaidikābharapa on (58) TPr. 2. 27 explains that the author means in his own view the *a* segment of *ai* and *au* is simply close: स्वमते तु संवृतकरणमेव ।

e, stops of the *c*-group, *i*, *ai*, *y* and *ś* are palatal, and both *o* and *au* are included among labials.

3. 2. 5. Consider now something else the Ṛkprāṭiśākhya says concerning *e o ai au*. By

(61) RPr. 1. 1 : अष्टौ समानाक्षराण्यादितः ।

(62) RPr. 1. 2 : ततश्चत्वारि सन्ध्यक्षराण्युत्तराणि ।

the first eight sounds listed in the *akṣarasamāmnāya* adopted in this work (*a ā ṛ ṝ i ī u ū*) are called *samānākṣara*, and the four sounds that follow these (*e o ai au*) are called *sandhyakṣara*. As we are told in

(63) RPr. 13. 38 : सन्ध्यानि सन्ध्यक्षराण्यादुरेके द्विस्थानतैतेषु तथो-
भयेषु ।

(64) RPr. 13. 39 : सन्ध्येष्वकारोऽर्धमिकार उत्तरं युजोरुकार इति
शाकटायनः ।

some say that the *sandhyakṣara* result from fusion, so that not only *ai* and *au* but also *e* and *o* have two places of production; according to Śākaṭāyana, all these sounds have an *a*-segment as their first half, and the second half of *e*, *ai* is *i*, that of *o*, *au* is *u*.²³ However, notes

(65) RPr. 13. 40 : मात्रासंसर्गादचरे पृथक्श्रुती ।

since the components said to make up *e* and *o* are totally fused, these are actually separate individual sounds.²⁴ That is, though *e* and *o* be treated as composite sounds, they are not truly composed of separately discernible elements, as are *ai* and *au*; *e* and *o* are themselves single individual sounds.

23. Śaunaka later says that *ai* and *au* are like the combination of a short vowel and anusvāra, that is, the second segment is longer than a regular short *i* or *u* and the first segment is shorter than a regular *a* : RPr. 13. 41 : ह्रस्वानुस्वार-
व्यतिषङ्गवत्परे ।

24. I have adopted the second of alternative readings of (65) RPr. 13. 40 noted by Uvaṭa and interpreted accordingly. The first reading Uvaṭa gives (‘*avare* *pr̥thakśrutī*’), though it gives a very satisfactory sense, is phonologically unacceptable, since the ending of *avare* should be *pragṛhya*.

3. 2. 6. The reasons for treating the monophthongs *e, o* as though they were diphthongal are well known and not hard to see. The vowels *e, o* behave phonologically in a manner parallel to that of the diphthongs *ai, au*. As preconsonantal *ai, au* alternate with prevocalic *āy, āv*, so do *e, o* alternate with *ay, av*. Of course, grammarians account for such alternations. Thus,

(66) A. 6. 1. 78 : एचोऽयवायावः ।

provides that *ay av āy āv*, respectively, substitute for *e o ai au* before vowels,²⁵ and

(67) TPr. 9. 11 : एकारोऽयम् ।

(68) TPr. 9. 12 : ओकारोऽवम् ।

(69) TPr. 9. 14 : ऐकार आयम् ।

(70) TPr. 9. 15 : औकार आवम् ।

account for the change of prevocalic word-final *e o ai au*, respectively, to *ay av āy āv*.²⁶ In addition, of course, there are instances of *e o ai au* which are synchronically to be derived from sequences of *ā* and following *i* (e. g., *neti* < *na iti*, *mahendra* < *mahā-indra*), *ū* (e. g., *tenoktam* < *tena uktam*, *tvorje* < *tvā ūrje*), *e* (e. g., *athaitāḥ* < *atha etāḥ*), *ai* (e. g., *evaindrīm* < *eva aindrīm*), *o* (e. g., *brahmaudanam* < *brahmā odanam*), and *au* (e. g., *sasmitaudumbarī* < *sasmitā audumbarī*). Accordingly, in

(71) A 6. 1. 87 : आद् गुणः ।

(72) A 6. 1. 88 : वृद्धिरेचि ।

Pāṇini provides that *ā* and a following vowel are both replaced by a *guṇa* vowel if the second sound of the original sequence is *ī ū ṛ ḷ*, by a *vṛddhi* vowel if the second sound is *e o ai au*.²⁷ Similarly, by

25. Word-final *-y, -v* are then subject to particular operations, including deletion; see (39) TPr. 10. 19, (80) A 8. 3. 19 with notes 9, 35.

26. Cf. VPr. 4. 46 : सन्ध्यक्षरमयवायावम् ।

27. (71) - (72) A 6. 1. 87-88 come under the heading of A 6. 1. 84 [see note 11]. By itself (71) A 6. 1. 87 provides that an *a*-vowel and any vowel

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(73) TPr. 10. 4 : इवर्णपर एकारम् ।

(74) TPr. 10. 5 : उवर्णपर ओकारम् ।

(75) TPr. 10. 6 : एकारैकारपर ऐकारम् ।

(76) TPr. 10. 7 : ओकारौकारपर औकारम् ।

-*ā* and following *ī*-, *ū*- together give *e*, *o*, -*ā* *e*- or -*ā* *ai*- gives *ai*, and -*ā* *o*- or -*ā* *au*- gives *au*.²⁸

Moreover, under conditions which call for the prolation of vowels such as *a i u* to pluta vowels *a3 i3 u3*, one does not usually find merely trimoric *e o ai au*. Terms with unproluted *e o ai au*, respectively, are usually matched with terms containing proluted segments *a3 a3 i3 u3*. Therefore, in

(77) A 8. 2. 106 : हुतावैच इदुतौ ।

(78) A. 8. 2. 107 : एचोऽप्रगृह्यस्यादूराद्धूते पूर्वस्यार्धस्यादुत्तरस्येदुतौ ।

Pāṇini provides for the following. Under conditions given in earlier sūtras for pluta vowels to occur, the segments *i* and *u* of *ai* and *au* are replaced by pluta vowels; the first half of non-pragṛhya *e* or *o* is replaced by pluta *a3*, the second half by *i*, *u*, provided the form in question is not used in calling someone from afar.²⁹ For example, to the vocative singular forms *aitikāyana*, *agne* correspond *ai3tikāyana*, *agna3i*.³⁰

(Continued from the last page)

following it are both replaced by a guṇa vowel. However, exceptions to this rule, including (72) A 6. 1. 88 have claimed their own domains, (71) A 6. 1. 87 applies as described.

28. (73) – (76) TPr. 10. 4–7 come under two headings : TPr. 10. 1 : अथैकमुसे |, TPr. 10. 3 : अथावर्णपूर्वे |. The first is comparable to VPr. 4. 49 [note 12]; the second provides that subsequent rules apply if the first of two vowels subject to change is an *a*-vowel. Cf. VPr. 4. 52 : कण्ठ्यादिवर्ण एकारम् |, 4. 53 : उवर्ण ओकारम् |, 4. 56 : सन्ध्यक्षर ऐकारौकारौ ।

29. The abbreviations *eC* (gen. sg. *ecāḥ*) refers to *e o ai au*, but since (77) A 8. 2. 106 applies for *ai* and *au*, (78) A 8. 2. 107 applies for *e*, *o*. It is not necessary to consider here the conditions under which *e* and *o* can be pragṛhya.

30. It is not necessary to consider here details concerning how many more sequences like *ai3*, *ai3i* have.

3.2.7. Under the assumption that not only *ai* and *au* but also *e* and *o* are treated as composite elements, one might wish to go one step further and do away with these as separate primary units. One would now operate with basic components that would combine by phonologic rules to give *e o ai au* and *ay av āy āv*. Sequences *ai aī aī aī* would now be posited, and these would give *e o ai au* before consonants [cf. (71)–(72) A. 6. 1. 87–88, section 3.2.6]. In addition, a semivowel substitution rule comparable to

(79) A 6. 1. 77: इको यणचि³¹

would provide for *y v r l* in place of prevocalic *ī ū ṛ ḷ*, accounting also for *ay av āy āv* from prevocalic *aī aī aī aī*.

Although early Indo-Aryan *e o ai au* are known historically to derive from Proto-Indo-Iranian **aī aī aī aī*, however, it is difficult synchronically to operate with the scheme noted. To be sure, in accordance with their historical origins, Sanskrit *e o ai au* are paired with *ay av āy āv*. Nevertheless, as is well known, *e* and *o* regularly result from short or long *ā* and following *i* and *ū* in instances which patently involve sequences of vowels in Sanskrit. For example: पिताऽइव → पितैव (RV 1. 1. 9a), इन्द्र । आ । इहि । → इन्द्रैहि (RV 1. 9. 1a), not **पितैव*, **इन्द्रैहि*. In such cases, a sequence of *ā* and a vowel *ī, ū* clearly does not systematically give *ai, au* opposed to *e, o* from sequences in which the first vowel is short *a*.³² Of course, it is examples of this sort, which unambiguously involve collocations of separate syntactic

31. Cf. RPr. 2. 21 : समानाक्षरमन्तस्थां स्वामकण्ठ्यं स्वरोदयम् ।, VPr. 4. 45 : स्वरे भाव्यन्तःस्थाम् । and -- more narrowly formulated in terms of actual operands TPr. 10. 15 : इवर्णोकारौ यवकारौ ।

32. Of course, *e* and *o* for sequence with *ā* can be explained historically through shortening of word-final *-ā* to *-a* before *ī, ū*; see Wackernagel, *Altindische Grammatik* I. 318. Nevertheless, synchronically, example like *pitēva* are to be treated as deriving from sequences with *-ā* and *ī*, at a time when Indo-Aryan already had a monophthong *e* historically derived from *ā ī*. Instances like *aīkṣata*, which call for special rules in a synchronic grammar (A 6. 1. 90 : आटश्च ।), do not affect the present discussion.

elements, that should dictate what one is to consider the usual synchronic outcome of vowel sequences. Examples such as *achaitṣīt* and *aśrauṣīt* from *chid* and *śru* cannot serve to establish for Sanskrit a synchronic rule whereby *āi* and *āū* go to *ai* and *au*. It is preferable to derive forms like *achaitṣīt*, *aśrauṣīt* by letting the vṛddhi vowels *ai*, *au* substitute for *ī*, *ū* in particular grammatical contexts.³³

In addition, consider the examples अग्ने इन्द्र (RV 5. 46. 2a), वायं उक्थेभिर्जरन्ते (RV 1. 2. 2a).³⁴ Under the thesis being considered, the vocatives *agne*, *vāyo* would be derived synchronically from *agnai*, *vāyaū*, just as a form like *ayaje* would be derived from *ayaja-i*, with the ending *i* after the stem *ayaja*. The *-i*, *-u* of *agnai*, *vāyaū* would be subject to semivowel substitution, giving *agnay*, *vāyav*, and word-final *-y*, *-v* are subject to deletion, as provided for in

(80) A 8. 3. 19 : लोपः शाकल्यस्य ।³⁵

However, such derivations are not free from problems. Semivowel substitution should apply to *ī* and *ū* before dissimilar vowels. Sequences of like vowels (*īī*, *ūū*) regularly give single long vowels (*ī*, *ū*).³⁶ Thus, semivowel replacement cannot properly apply to get *agnay* from *agnai* before *indra* and *vāyav* from *vāyaū* before *ukthebhiḥ*. Mechanical application of phonological rules would allow first *agna indra* and *vāya ukthebhiḥ*, with *-ī-* and *-ū-* from *-i i-* and *-u u-*, then **agnendra* and

33. A 7. 2. 1 : सिचि वृद्धिः परस्मैपदेषु । etc.

34. Padapāṭha अग्ने । इन्द्र ।, वायो इति । उक्थेभिः । जरन्ते ।

35. In the two sūtras preceding (80) A 8. 3. 19 Pāṇini allows for word-final *-y* before voiced segments and notes that in Śākāṭāyana's dialect *-v* and *-y* are replaced by lightly articulated glides before voiced segments. Other details articulated glides before voiced segments. Other details do not have to be treated here. [See also note 9]

36. (40) A 6. 1. 101 (section 3. 1) is an exception to (79) A 6. 1. 77, so that it takes precedence over the latter.

**vāyokttthebhiḥ*, with *-e-* and *-o-* from *aī* and *aū*. On the other hand, all is in order if one begins with vocative forms *agne* and *vāyo*: *-e* and *-o* are replaced by *-ay* and *-av* [see (66) A 6. 1. 78, section 3. 2. 6], then *-y* and *-v* are deleted. The vocatives *agne*, *vāyo* are themselves straightforwardly accounted for by a grammatical rule letting the guṇa vowels *e*, *o* substitute for stem-final *i*. u.³⁷

A similar problem arises in connection with an example like अयज इन्द्रम् १, derived from अयज-इ इन्द्र-अम्. If semivowel replacement could apply to the *-i* of *ayaja-i*, the word-final *-y* of *ayaja-y* would be deleted, so that the desired result could be accounted for. But of course semivowel substitution cannot properly apply to the *-i* of *ayaja-i* before *indra-*. Once more, mechanically applying phonological rules allows for wrong results: *ayaja-ī-*, with *-ī-* from *-i i-*, then *ayaje-*, so that one would derive *अयजेन्द्रम् १. On the other hand, given *ayaje*, the desired result is accounted for: *-e* is replaced by *-ay*, then word-final *-y* is deleted.

The analysis of *ayaje* into a stem *ayaja* and an ending *i* is justified. The same stem appears with other endings, as in *ayajathāḥ*, *ayajata*, with the endings *thās*, *ta*, and the ending *i* appears with other stems, as in *ayākṣ-i*, *aduh-i*, *adhukṣ-i*. Once one has posited *ayaja-i*, one must allow a rule to apply such that *a* and *i* following it together give *e* [see 71) A 6. 1. 87, section 3. 2. 6]. Moreover, this takes precedence over the rule whereby the *-i* of *ayaja-i* and the *i-* of *indra-* following it would give *-ī-*, because phonological rules do not operate absolutely mechanically. Clearly, *ayaja-i* and *indra-am* are distinct words composed of stems and endings. Word boundaries are observed, so that

37. A 7. 3. 108 : ह्रस्वस्य गुणः । Subsequent sūtras let the same replacements apply in other grammatical contexts, before the nominative plural ending *Jaś* (A 7. 3. 109 : जसि च ।) and before endings marked with *ḥ* (A 7. 3. 111 : वेङिति ।). Reasons for Pāṇini positing particular basic forms of nominal and verbal bases are treated extensively in part I of my *Pāṇini*, in preparation.

operations which apply within a word take precedence over operations which would apply across a word boundary.³⁸

The same principle could be invoked in support of positing forms such as *agnai*. First the contiguous vowels *a* and *i* give *e* within this word, then the *-e* of *agne* is replaced by *-ay* before the vowel of the following word *indra*, so that the proper results are accounted for. Note, however, that we have now eliminated one of the formal reasons for possibly espousing the thesis under consideration: By eliminating basic *e* and *o* in favour of *ai* and *au*, one could let a necessary semivowel substitution rule account for *ay* and *av* which alternate with *e* and *o*, thus doing away with the need for a rule replacing *e* and *o* with *ay* and *av* before vowels. This rule is seen to be necessary in any case. Moreover, forms of the type *agne* are not really precisely comparable to forms like *ayaje*. As I have pointed out, it is perfectly justified in terms of Sanskrit morphology to say that *ayaje* consists of a stem *ayaja* and an ending *i*. There is no such evidence to justify one's insisting that *agne*, *vāyo* be derived synchronically from more basic *agnai*, *vāyaū*. The only synchronic evidence for this is not grammatical but phonological: There are also forms such as *agnayaḥ* and *vāyavaḥ*, with *-ay-* and *-av-* before vowel-initial endings. Though it is true that these forms could be accounted for by letting semivowel substitution apply to the *-i* and *-u* of *agnai* and *vāyaū*, nevertheless, as I have just noted, a rule whereby *e* and *o* of items such as *agne* and *vāyo* are replaced by *ay* and *av* is still required, so that it is equally possible to derive forms like *agnayaḥ*, *vāyavaḥ* from stems with *-e*, *-o* (see note 37).

Now, stem forms of the types *agne*, *agnay* and *vāyo*, *vāyav* are found in particular grammatical contexts, which are the same for *-i-* and *-u-*stems (cf. note 37). Hence, one might suggest that these alternants are best accounted for by the single process of inserting *a* before the stem-final sounds in the pertinent contexts.

38. Put more traditionally, an internally conditioned operation (*antarāṅga*) takes precedence over one that is externally conditioned (*bahirāṅga*).

By phonological rules, then, *-aī*, *aū* would go to *-e*, *-o* before consonants and in word-final position, and *-i*, *-u* of *-aī*, *-aū* would be replaced by *-y*, *-v* before vowel-initial endings. However, not every grammatically conditioned stem-final *-e*, *-o* is to be accounted for in the manner suggested. Consider, for example, some forms of *-a*-stems. Forms like *puruṣaḥ*, *puruṣam*, *puruṣasya* justify positing stems in *-a* such as *puruṣa*. The *-e* of *puruṣe* then is to be derived from *puruṣa-i*, with the locative singular ending *i* found elsewhere (e. g., *vāci*). There are also forms with stem-final *-ā* (*puruṣāya*, *puruṣābhyām*, *puruṣānām*), best accounted for through lengthening of stem-final *-a* before the dative singular ending *ya*, the instrumental, dative, ablative endings *bhyām*,³⁹ and the augmented genitive plural ending *nām*.⁴⁰ A stem form in *-e* occurs with the dative, ablative plural endings *bhyas* (*puruṣebhyaḥ*) and the locative plural ending *su* (*puruṣeṣu*). To be sure, one could derive *puruṣebhyaḥ*, *puruṣeṣu* from *puruṣa-ibhyas*, *puruṣa-isu*. There is, however, no evidence elsewhere to justify positing the variants *ibhyas*, *isu* for the endings in question; contrast *vāgbhyaḥ*, *vākṣu*. Under the thesis that the *-e* of *puruṣe* is to be derived synchronically from *-aī*, then, one must introduce *i* after the final vowel of an *-a*-stem before such endings. Consequently, one can no longer claim a single process of deriving grammatically conditioned *e* by inserting *a* before *ī*. Therefore, it is equally justifiable to provide that *e* replaces stem-final *a* before certain endings.⁴¹

In addition, there are instances of *e* and *o* which must be treated synchronically as primitive vowels, whatever their etymo-

39. A 7.3.102 : सुपि च ।

40. A 6.4.3 : नामि । The same long-vowel substitution accounts for forms such as *agninām* (< *agni-nām*), *vāyūnām* (< *vāyu-nām*), *pitṛnām* (< *pitṛ-nām*).

41. A 7.3.103 : बहुवचने झल्येत् ।, 7.3.104 : ओसि च । The latter accounts for forms like *puruṣayos* (< *puruṣe-os* < *puruṣa-os*). As is well known, the *-e* of forms such as *puruṣebhyaḥ*, *puruṣeṣu* goes back to Indo-Iranian **-ai-* (Avestan

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logical origins, since they do not enter into grammatical alternations. For example, the vowels of the enclitic pronoun forms *te*, *me* do not alternate with *ī* or any other vowel : synchronically, *te* and *me* have to be treated simply as enclitic variants of genitive *tava*, *mama* and dative *tubhyam*, *mahyam*. Similarly, the *e* of *eka* and the *o* of *oṣṭha* do not alternate with other vowels in grammatically related forms. Synchronically, therefore, these items have primitive *e* and *o*.⁴²

Moreover, even though the stem *go* does alternate with *gu*, there are valid reasons for treating the former as basic. To be sure, one has *gave*, *goḥ* comparable to *vāyave*, *vāyoḥ* from the *-u*-stem *vāyu*. However, *gobhyām*, *gobhiḥ*, *gobhyaḥ*, *goṣu* cannot justifiably be derived from a basic stem *gu* by adding *a* to this stem, giving *gaū*, before the endings *bhyām*, *bhiḥ*, *bhyaḥ*, *su*. Forms such as *vāyubhyām*, *vāyubhiḥ*, *vāyubhyaḥ*, *vāyuṣu*, which are typical for *u*-stems, definitively speak against this procedure. Further, as opposed to terms like *vāyu-* as first members of compounds (e. g., *vāyu-keśa*), one has *go-* as a first member of a compound (e. g., *go-kāma*). All of this speaks for positing a basic stem *go* the *-o* of which is replaced by *-av* before vowel-initial endings.⁴³

(Continued from the last page)

-aēbhō, *aēsu*). I need hardly emphasize, however, that such historical considerations cannot determine what a grammarian is to posit in a synchronic system. Moreover, there are Indo-Aryan forms with *e* that definitely is not to be explained historically as from Proto-Indo-Aryan **ai*. For example, perfect forms of the type *petatuḥ* contain *-e-* as the result of an analogic extension that presupposes the existence of simple *e* in early Indo-Aryan, and Pāṇini is obviously correct in not deriving the *e* of such forms from *ai* (A 6. 4. 120 : अत एकहल्मध्येऽनदेशादेर्लिटि । etc.).

42. Although *e* and *o* of these items derive historically from **ai* and **au* (cf. Avestan *tōi*, *mōi*, *aēva*, *aōšta*, *aōstra*).

43. The occurrence of *-gu* in compounds like *citra-gu*, comparable to *indra-tatru*, does not suffice to tip the balance in favour of a basic stem *gu*, given what has been noted [cf. (85) A 1. 2. 48, section 3. 2. 8].

For similar reasons, it is proper to posit a base *nau* (e. g., *naubhyām*, *naubhiḥ*) the *-au* of which is replaced by *-āv* before vowel-initial endings (e. g., *nāvam*, *nāvā*).

In sum, it is not only true that historical developments resulted in Old-Indo-Aryan monophthongs *e*, *o* from Proto-Indo-Iranian diphthongs **ai*, *au* and Old-Indo-Aryan diphthongs *ai*, *au* — with short *a* — from Proto-Indo-Iranian **āi*, *āu*. It is also true that one cannot eliminate *e*, *o* and *ai*, *au* as separate units in a synchronic description of Sanskrit and operate instead with sequences *aī*, *aū*, and *āī*, *āū* alone.

3. 2. 8. In accordance with these facts, Pāṇini recognizes *e o ai au* as distinct units in his *akṣarasamāmnāya*. His first four *pratyāhārasūtras* are अ इ उ ण्, ऋ लृ क्, ए ओ झ्, ऐ औ च्. In addition, as I have noted (see sections 3. 2. 1–3. 2. 5), authors of *prātiśākhya*s recognize that *e* and *o* are monophthongs, respectively palatal and labial, as opposed to the diphthongs *ai* and *au*. There is evidence to show that Pāṇini too recognized this distinction between monophthongal *e*, *o* and diphthongal *ai*, *au*. In (77) A 8. 2. 106 (section 3. 2. 6) he refers to *i* and *u* (*idutau*) which pertain to *ai* and *au* (*aicaḥ*), but in (78) A 8. 2. 107 he speaks of the first and second halves of the vowels *e*, *o* and provides that *i* replaces the second half of *e*, *u* the second half of *o*. That is, *ai* and *au* contain discernible *i*- and *u*-segments, but *e* and *o* do not.

The question remains, nevertheless, whether Pāṇini accepts not only that *e* and *o* are monophthongal but also a phonetic description according to which each of these vowels has only one place of production. This question arises in view of what we know concerning the interplay of phonetics and phonology. Pāṇini knows perfectly well that *a* is a close vowel, opposed to open *ā*, but he allows *a* to have the status of an open vowel because of its phonological behavior (see section 3. 1). Similarly, Pāṇini could quite well accept the fact that *e*, *o* are monophthongs and at the same time adopt also the phonetic description which treats these as each having two places of

production, again because of their phonological behavior (see section 3. 2. 6).

3. 2. 9. There is in fact solid evidence indicating that Pāṇini does indeed accept this description of *e* and *o*. Consider now the compound *citragu*, formed by

(81) A 2. 2. 24 : अनेकमन्यपदार्थे ।

according to which any number of related padas combine to form a bahuvrīhi compound,⁴⁴ on condition that the referent of the compound is different from that of any constituent. The term *anekam* of (81) A 2. 2. 24 is a nominative form, and

(82) A 1. 2. 43 : प्रथमानिदिष्टं समास उपसर्जनम् ।

provides that a term denoted by a nominative form used in a rule of composition is called *upasarjana*. Classing an element as *upasarjana* serves more than one purpose. First, according to

(83) A 2. 2. 30 : उपसर्जनं पूर्वम् ।

an *upasarjana* generally takes prior position in a compound. This does not apply to a bahuvrīhi compound formed by (81) A 2. 2. 24, however, since all of the component padas in question, referred to by the nominative *anekam*, are *upsarjanas*. Hence, in

(84) A 2. 2. 35 : सप्तमीविशेषणे बहुव्रीहौ ।

Pāṇini provides that a pada with a locative ending or one that is a qualifier occupies prior position in a bahuvrīhi. Accordingly, the qualifier *citra* takes first position relative to *go* : *citra-go*.⁴⁵ In addition,

(85) A 1. 2. 48 : गोस्त्रियोरुपसर्जनस्य ।

44. A 2. 2. 23 : शेषो बहुव्रीहिः । In accordance with the heading A 2. 1. 3 : प्राक् कङारात्समासः ।, a derivate formed by (81) A 2. 2. 24 has the class name *samāsa* ('compound').

45. *citra-go* derives from *citra-as-go-as*. The latter is a *samāsa* [see note 44], hence is a derived nominal base [*prūtipadika*, (97) A 1. 2. 46, section 7. 1] so that the endings of the constituent padas *citra-as* and *go-as* are deleted (see note 125).

provides that the final vowel of a nominal base that ends in the *upasarjana* *go* or in an *upasarjana* with a feminine suffix is replaced by a short vowel. The *-o* of *citra-go* is thereby replaced by a short vowel. Now, if *o* is classed simply as a labial vowel, the choice of *u* as the short vowel to replace it is immediately provided for by (2) A 1. 1. 50 (section 1. 1). Yet Pāṇini has another sūtra,

(86) A 1. 1. 48: एच इग्रस्वादेशे ।

according to which *i*, *u* substitute for *e o ai au*⁴⁶ if these are to be replaced by short vowels that are not specified. It would be understandable that Pāṇini should formulate a sūtra

(86*) ऐच इग्रस्वादेशे ।

providing that *i* and *u* are the short-vowel replacements of *ai* and *au*. For *ai* and *au* are definitely diphthongs that combine discernible *a*-like segments with *i*- and *u*-segments, so that, by (2) A 1. 1. 50, either *a* or *i* could replace *ai* and *a* or *u* could substitute for *au*. However, if *e* and *o* are classed simply as palatal and labial vowels, respectively, there is no such choice of short-vowel substitutes available for them by (2) A 1. 1. 50. Since the Aṣṭādhyāyī contains (86) A 1. 1. 48, not (86*), it follows that Pāṇini accepts the classification of *e* and *o* as pharyngo-palatal (*kaṇṭhyatālavya*) and pharyngo-labial (*kaṇṭhyo-ṣṭhya*) sounds, although he also recognizes that these are not true diphthongs.

3. 2. 10. Kātyāyana and Patañjali are aware of this, as is clear from the Mahābhāṣya passages concerning (86) A 1. 1. 48. In his first vārttika on this sūtra, as interpreted by Patañjali, Kātyāyana gives two reasons for stating the sūtra: to preclude sounds homogeneous with *e*, *o* as substitutes for these and to preclude *a* as a substitute for *ai*, *au*.⁴⁷ Thus, by (2) A 1. 1. 50,

46. Although the abbreviation *iK* refers to *i u r*!, only *i* and *u* come into play, by virtue of similarity to the substituends.

47. A 1. 1. 48 vt. 1: एच इक् सवर्णकारनिवृत्त्यर्थम् । Bhāṣya I. 117. 6: एच इग्रभवतीत्युच्यते सवर्णनिवृत्त्यर्थमकारनिवृत्त्यर्थं च ।

the short vowels selected as replacements for *e* and *o* could be *ẽ* and *õ* so that (86) A 1. 1. 48 is stated to prevent the occurrence of such a 'half *e*' or 'half *o*'.⁴⁸ In addition, *ai* and *au* are composite sounds with one mora's worth of an *a*-segment and one mora each of *i* and *u*. (86) A 1. 1. 48 is stated so that *a* not occur as a replacement for these composite vowels.⁴⁹ In his third and fourth vārttikas to (86) A 1. 1. 48, Kātyāyana rejects the sūtra on the grounds that proper results are obtained without it. The desired substitution of *i* and *u* for *e* and *o* is established simply by virtue of the former having the same places of production as the latter.⁵⁰ Further, *i*- and *u*-segments constitute the greater parts of *ai* and *au*. Hence, *a*, which is similar to the segment that makes up the lesser part of these vowels, will not replace *ai* and *au*, since reference to a short vowel will be to that short vowel which constitutes the greater part of *ai* or *au*. This is comparable to other situations where the majority dictates what one refers to. For example, one speaks of having a Brāhmaṇa village being brought somewhere because the group in question has a majority of Brāhmaṇas, although it must also include at least five kinds of artisans.⁵¹ In the Mahābhāṣya on pratyāhārasūtras 3-4, Patañjali gives the same arguments and explicitly says (86) A 1. 1. 48 is rejected as unnecessary.⁵²

One point Kātyāyana makes is unambiguous. In rejecting the need for (86) A 1. 1. 48 to govern what short vowel is selected to replace *ai* or *au*, he appeals to a dialectal variety of these vowels (see section 3. 2. 2). One may conclude, then, that

48. Bhāṣya I. 117. 6-7 : सवर्णनिवृत्त्यर्थं तावत् । एङो ह्रस्वशासनेष्वर्धं एकारोऽर्धं ओकारो वा मा भूदिति ।

49. Bhāṣya I. 117. 7-10 : अकारनिवृत्त्यर्थं च । इमावैचौ समाहारवर्णौ । मात्रावर्णस्य मात्रेवर्णोवर्णयोः । तयोर्ह्रस्वशासनेषु कदाचिद्वर्णः स्यात् कदाचिदिवर्णोवर्णौ ।

50. A 1. 1. 48 vt. 3 : सिद्धमेङः सस्थानत्वात् ।

51. A 1. 1. 48 vt. 4 : ऐचोश्चोत्तरभूयस्त्वात् । Bhāṣya I. 118. 2-4 : ऐचोश्चोत्तरभूयस्त्वाद्वर्णौ न भविष्यति । भूयसी मात्रेवर्णोवर्णयोरल्पीयस्यवर्णस्य । भूयस एव ग्रहणानि भविष्यन्ति । तद्यथा । ब्राह्मणग्राम आनीयतामित्युच्यते तत्र चावरतः पञ्चकारुकी भवति ।

52. See Bhāṣya I, 22. 16-19.

according to Kātyāyana the sūtra is necessary under the condition that the segments which make up *ai* and *au* are of equal duration. As for Pāṇini's position, since he explicitly states (86) A 1. 1. 48, he obviously does not hold that the proper choice of short-vowel substitutes for *ai* and *au* is otherwise provided for. We cannot tell whether this necessarily means Pāṇini accepts that *ai* and *au* contain one mora's worth of *a*-like segments, but this is not crucial.

On the other hand, it is important to consider more closely the Bhāṣya's interpretation of Kātyāyana's first vārttika on (86) A 1. 1. 48. Patañjali obviously interprets *savarṇākāranivṛtti-* of *savarṇākāranivṛttyartham* as a tatpuruṣa compound that includes a dvandva *savarṇākāra-*. Under this interpretation, Kātyāyana is considered to argue that (86) A 1. 1. 48 serves different purposes with respect to *e*, *o* and to *ai*, *au*. The rule is considered necessary in the first instance to keep short *ě*, *õ* from replacing long *e*, *o*, with which they are homogeneous. Consequently, Patañjali interprets Kātyāyana's third vārttika on (86) A. 1. 1. 48 not only as claiming that *i*, *u* will substitute for *e*, *o* because they have the same places of production as these but also as considering *ě* and *õ* out of court: Though certain schools of Sāmaveda chanters do have such short vowels in contexts such as सुजाते अश्वसूनुते, where they pronounce *ě*- instead of *a*- in *aśva-* following -*e*, this is strictly a feature of particular schools of recitation, and *ě*, *õ* occur neither in everyday usage nor in any other Veda.⁵³ Now, whether the pronunciation of word-initial *a*- in hiatus after -*e*, -*o* as short vowels with the same qualities as the preceding vowels was truly absent from all Sanskrit dialects

53. Bhāṣya I. 117. 21-24 : ननु च भोश्छन्दोगानां सात्यमुगिराणायनीया अर्धमेकारमर्थमोकारं चाधीयते । सुजाते अश्वसूनुते ... पार्षदकृतिरेषा तत्रभवतां नैव लोके नान्यस्मिन्वेदेऽर्ध एकारोऽर्ध ओकारो वास्ति । Cf. Bhāṣya I. 22. 21-24. I have given *eśva-* in the citation, while Kielhorn gives ... *e aśva-*; see Abhyankar's note on the passage (Bhāṣya I. 117 note 1).

is not crucial to the present discussion.⁵⁴ The important point is that, although Pāṇini has indeed to state, as an exception to *abhinihita sandhi*,⁵⁵ the retention of hiatus sequences *-e a-*, *-o a-* in the interior of certain Vedic verses,⁵⁶ it is in keeping with his regular procedure that he not also give phonetic details concerning such sequences. It is no more incumbent on Pāṇini to note that some pronounce *a-* after *-e* and *-o* with the same quality as these vowels than it is within the purview of the *Aṣṭādhyāyī* to treat such phonetic details as the pronunciation of *yamas*.⁵⁷ Therefore, (86) A 1. 1. 48 should not be considered necessary to exclude *ě*, *ō* as replacements for *e*, *o*: The former are merely particular phonetic realizations of *a-* in specific contexts such that they have nothing to do with rules for replacing *e* and *o* with short vowels, and Pāṇini need not consider them. Moreover, Kātyāyana need not have intended any reference to *ě* and *ō* in his first *vārttika* on (86) A 1. 1. 48. It is also quite possible that *savarṇākāra-* should be interpreted as a *karmadhāraya* compound referring to *a* homogeneous with a segment included in *e* and *o*. Kātyāyana could well have said *savarṇākāranivṛttyartham* instead of simply *akāranivṛttyartham* because, even if *e o ai au* are all treated as composite sounds, they can be said to contain *a*-like segments homogeneous with *a* but not a truly independent *a*-vowel.⁵⁸ Under this interpre-

54. Note nevertheless that the pronunciation in question was apparently not restricted to schools of Sāmaveda recitation. It is noted also in the *Rk-prātiśākhya* (2.81) and the *Taittirīyaprātiśākhya* (11.19). See 'A note on *abhinihitasandhi* in Sanskrit', appearing in the Robert Fowkes *Festschrift* (in press for some years).

55. A 6.1.109 : एङः पदान्तादति ।

56. A 6.1.115 : प्रकृत्यान्तःपादमव्यपरे ।

57. See 'A note on morphophonemic and phonetic rules in Sanskrit', *Mysore Orientalist* 10.1-6 (1977).

58. Recall that when Patañjali (Bh. I. 23.24) introduces the discussion concerning whether parts of complex sounds should be included among the referents of terms which refer to independent sounds he speaks of segments that are of the same type as other, independent, sounds (*varṇāntarasamānākṛtayah*), not of segments that are these sounds themselves.

tation, *vārttika* 1 on (86) A 1. 1. 48 holds that the *sūtra* is necessary to preclude the possible replacement of *e*, *a* as well as *ai*, *au* by an *a*-vowel, homogeneous with a segment included in these vowels. Kātyāyana's third *vārttika* now would simply reject this argument with respect to *e*, *o* and this is based on *e* and *o* being treated as simple vowels, palatal and labial, that do not contain any *a*-like segment.

Whichever interpretation is given to Kātyāyana's first *vārttika* on (86) A 1. 1. 48, one fact remains: If Pāṇini had indeed adopted the system in which *e* and *o* are classed as simple vowels he could have done with (86*) instead of (86) A 1. 1. 48. One must accept, then, that Pāṇini has adopted the system in which *e* and *o* are treated as composite sounds. In addition, as one can see from the Aṣṭādhyāyī itself, there is absolutely no reason to doubt that Pāṇini was aware of the true value of *e* and *o*: These vowels are monophthongs. Once more, then, we have a description based on phonological considerations. The monophthongs *e*, *o* alternate with sequences *ay*, *av* as the composite sounds *ai*, *au* alternate with *āy*, *āv*. Accordingly, all of the sounds *e* *o* *ai* *au* may be treated as composite.⁵⁹

4. Treating *a* as though it were an open vowel of the same type as *ā* (section 3.1) and classing *e*, *o* as composite sounds (section 3.2) come under the rubric of conventions prompted by phonological considerations, contrary to phonetic facts. Further, as is clear from (65) RPr. 13.40 (section 3. 2. 5), even if a text baldly states that *e*, *ai* both are pharyngo-palatal and *o*, *au* both are pharyngo-labial,⁶⁰ thus explicitly acknowledging two places of production for *e* and *o*, this does not mean these sounds are truly diphthongal or even that the author of the text in question accepts this as phonetically true. Given

59. Later Pāṇinīyas generally give two places of production for *e*, *o* as well as *ai*, *au*; for example, RA I. 4 (section 7): एदैतोः कण्ठतालुः, ओदैतोः कण्ठोष्ठम् । See also note 60.

60. As, for example, in ĀS. I. 17-18: एदैतौ कण्ठतालव्यौ, ओदैतौ कण्ठोष्ठौ ।

what I have shown, moreover, we should envision still another possibility : that phonological considerations influence not only a description or classification of sounds but also could intrude upon what appears to be purely a description of how sounds are produced. There is evidence for this from a text generally considered old, the *Āpiśalaśikṣā*.

As I have pointed out (sections 1.2, 2.1), the *Taittirīya-prātiśākhya* describes how *nāda*, *śvāsa* and *hakāra* come about due to degrees of glottal aperture, then proceeds to describe how organs are positioned to articulate different sounds. The *Āpiśalaśikṣā* speaks of the *prāṇa* breath rising and striking at various places. From such striking, says *Āpiśali*, there is produced in the ether a certain sound, and this is the realization of a basic sound.⁶¹ *Āpiśali* goes on to say that as this sound is being produced one has different internal efforts, occlusion, slight occlusion, and so on.⁶² Subsequently, he treats external efforts. He begins by saying that the rising air gets up to the vault of the mouth, then is forced back. It is at this time that one gets the properties *vivāra* and *saṃvāra*, as a consequence of the glottis' being open and close. In addition, *nāda* and *śvāsa* respectively arise when the glottis is close and open.⁶³ Moreover, says *Āpiśali*, these are added to the basic sound produced by the breath striking at a place : When *nāda* is added, *ghoṣa*

61. *ĀS* 8.1 : तस्मात् स्थानाभिधाताद् ध्वनिरूपयत् आकाशे ... स वर्णस्यात्मलाभः । Further details concerning this and other passages I deal with here are given in 'On the *Āpiśalaśikṣā*, pp. 245-256 of *A corpus of Indian studies [Essays in honour of Professor Gaurinath Sastri]*, edited by Gopikamohan Bhattacharya (Calcutta, 1980).

62. *ĀS* 8.2-6 : अत्र ध्वनावुत्पद्यमाने यदा स्थानकरणप्रयत्नाः परस्परं स्पृशन्ति सा स्पृष्टता । यदेषत् स्पृशन्ति तदेष्टस्पृष्टता । दूरेण यदा स्पृशन्ति सा विवृतता । सामीप्येन यदा स्पृशन्ति सा संवृतता । इत्येषोऽन्तःप्रयत्नः ।

63. *ĀS* 8.7-10 : स इदानीं प्राणो नाम वायुरूर्ध्वमाक्रमन् मूर्ध्नि प्रतिहतो यदा कोष्ठमभिहन्ति तदा कोष्ठेऽभिहन्यमाने गलबिलस्य विवृतत्वाद्विवारः संवृतत्वात् संवारो जायते । तौ संवारविवारौ । तत्र यदा कण्ठबिलं संवृतं भवति तदा नादो जायते । विवृते कण्ठविले श्वासो जायते ।

is produced as a result of combining *nāda* with a sound, and when *śvāsa* is added, *aghoṣa* results.⁶⁴

The descriptions found in the Taittirīyaprātiśākhya and the Āpiśalaśikṣā clearly differ in important respects. The former not only recognizes *nāda* and *śvāsa* as materials that make up particular sets of sounds⁶⁵ but also recognizes a phonological opposition between consonants called *ghoṣavat* and *aghoṣa*. It does not say, however, that *ghoṣa* and *aghoṣa* are entities produced in some way and distinct from the air flow, much less that *ghoṣa* and *aghoṣa* arise because of a basic sound combining with *nāda* and *śvāsa*. Nor does the Taittirīyaprātiśākhya say there is produced in the ether any sort of basic sound to which *nāda* and *śvāsa* are added. Indeed, it is difficult phonetically speaking to justify such basic sounds devoid of *śvāsa* or *nāda*. On the other hand, Āpiśali's statements make sense if one considers them to reflect the influence of phonological considerations. Āpiśali's basic sounds, produced by the rising breath striking at various places, are characterized by those properties which distinguish sets of homogeneous sounds [cf. (1) A 1. 1. 9, section 1. 1]. To these basic units are added features, such as voicing, which distinguish members within homogeneous sets.

One is justified in concluding, I think, that Āpiśali, who doubtless composed grammatical rules in addition to a śikṣā, operated with a phonological system comparable to Pāṇini's, in which there are classes of homogeneous sounds, characterized by articulatory efforts such as full contact by an articulator at a place in the oral cavity, and other groups of sounds, characterized by features such as voicing. I consider it proper also to conclude that Āpiśali adapted his description in the Āpiśalaśikṣa to this phonological system.

64. ĀS 8. 13-15 : तत्र यदा स्थानाभिधातजे ध्वनौ नादोऽनुप्रदीयते तदा नादध्वनि-संसर्गाद् घोषो जायते । यदा श्वासोऽनुप्रदीयते तदा श्वासध्वनिसंसर्गाद् घोषः । सा घोषवद्-घोषता ।

65. For the present discussion it is not crucial that the Taittirīyaprātiśākhya also operates with *kaṭūra*,

5. To begin this lecture, I remarked that Pāṇini presupposes a knowledge of Sanskrit phonetics for the study of his Aṣṭādhyāyī (see section 1. 1). I noted too that Patañjali accordingly qualifies grammar as a later science to be approached by one already instructed in Vedic studies, including phonetics (see section 1. 3 with notes 4-6). Now, as later Pāṇinīyas appropriately point out, Patañjali also speaks of another situation, which prevailed at an earlier time. In the Paspasā, the various reasons for studying grammar are taken up. The question is then posed, why these reasons are explained to students who are about to study grammar only and not for those who are to learn something else, that is, for students who will recite Vedas.⁶⁶ Patañjali then explains that there is a difference between what prevailed at an earlier time and what is common in his day. In an earlier age, Brāhmaṇas would study vyākaraṇa right after their upanayana. Vedic words were taught to such students, who knew from their earlier study sounds, places of production, articulatory efforts within the oral cavity, and articulatory efforts outside the oral cavity. Nowadays, says Patañjali, things are not that way. Brāhmaṇas first study a Veda and, in a rush to marry and make a living, they say that grammar has no purpose, since Vedic words are established for them from the Veda and words of everyday usage from everyday life. For such students, who have a contrary appreciation, the teacher explains the śāstra, telling them grammar is to be studied for such and such reasons.⁶⁷ In this passage, the Bhāṣya uses *sthānakaraṇānupradānajñebhyaḥ* ... ' who know places of production, efforts within the oral cavity, and efforts outside the oral cavity ' with reference to the Brāhmaṇas of an earlier age, those who first studied vyākaraṇa. Bhartṛhari makes an important

66. Bh. I. 5. 5-6 : किं पुनरिदं व्याकरणमेवाधिजिगांसमानेभ्यः प्रयोजनमन्वाख्यायते न पुनरन्यदपि किञ्चित् । ओमित्युक्त्वा वृत्तान्तज्ञः शमित्येवमादीन्शब्दान्पठन्ति ।

67. Bh. I. 5. 6-11 : पुराकल्प एतदासीत् । संस्कारोत्तरकालं ब्राह्मणा व्याकरणं स्माधीयते । तेभ्यस्तत्र स्थानकरणानुप्रदानज्ञेभ्यो वैदिकाः शब्दा उपदिश्यन्ते । तदद्यत्वे न तथा । वेदमधीत्य त्वरिता वक्तारो भवन्ति । वेदान्नो वैदिकाः शब्दाः सिद्धा लोकाच्च लौकिकाः । अनर्थकं व्याकरणमिति । तेभ्य एवं विप्रतिपन्नबुद्धिभ्योऽध्येतृभ्य आचार्य इदं शास्त्रमन्वाचष्टे । मानि प्रयोजनान्यध्येयं व्याकरणमिति ।

remark in connection with this : At the earlier time of which Patañjali speaks matters like the places where sounds are produced were learned from *vyākaraṇa* alone.⁶⁸ This is perfectly in accordance with what Patañjali says. It also requires that the term *vyākaraṇa* refer to different things at different times. When Patañjali speaks of grammar (*vyākaraṇam*) as a later science taken up by students already instructed in Vedic śāstras, he obviously uses *vyākaraṇa* with reference to grammar as reflected in a work like the Aṣṭādhyāyī, grammar distinct from śikṣā. On the other hand, when Patañjali qualifies earlier Brāhmaṇas as *sthānakaraṇānupradānājña-* by virtue of their having studied *vyākaraṇa* before being taught a Veda, he cannot mean by *vyākaraṇa* a branch of study that totally excluded phonetics (*śikṣā*). At the earlier time to which Patañjali alludes, in other words, there was no absolute segregation between śikṣā works, treating of phonetics alone, and sets of statements that constituted at least partial grammars. There is no cogent reason to think that Patañjali has indulged in fanciful invention when he speaks of this earlier epoch. On the contrary, we actually see this reflected in early works like the Taittirīyaprātiśākhya and the Ṛkprātiśākhya. These treatises include śikṣā sections dealing with the production of Sanskrit sounds. They also contain sets of phonological rules for relating the saṃhitāpāṭha and the padapāṭha of different Vedic texts.

68. Dipikā 15.3 : पुराकल्पे स्थानकरणादीन् व्याकरणादेव प्रतिपद्यते । Siva-rāmeṇdra Sarasvatī has Patañjali's statement ultimately imply that Vedas were taught to students who had already studied śikṣā, since it is in śikṣā that places of production and efforts are distinguished. Ratnaprakāśa I. 68 : तथा चाधीतशिक्षेभ्य इति फलितम् । शिक्षायां हि स्थानप्रयत्नविवेकः कृतो वर्तते । On the other hand, Vaidyanātha Pāyagunḍa (Chyāyā I. 51a [similarly I. 50a]) says Patañjali has used *vyākaraṇa* in both the Bhāṣya passages at issue (see notes 66, 67) with reference not only to grammar but also, metaphorically, to other vedāṅgas : व्याकरणमित्यङ्गानामुपलक्षणम् । Obviously, commentators try to reconcile what Patañjali says with the usual state of affairs they are acquainted with : *vyākaraṇa* and śikṣā are absolutely distinct vedāṅgas that deal with separate matters.

6. Summary. Although Pāṇini's Aṣṭādhyāyī, admittedly the most brilliant representative of Indian grammar (vyākaraṇa), does not deal with details of phonetics, it presupposes a knowledge of Sanskrit phonetics and of different possible phonetic classifications (sections 1.1-1.2). Accordingly, Patañjali characterizes vyākaraṇa as a later science, which students traditionally approached after Vedic studies, including the study of phonetics (section 1.3). There is also good evidence for concluding that from early on, certainly before Pāṇini's time, Indian scholars dealt with phonetics and phonology as related areas (section 5). In relating the two, these scholars could see that phonological oppositions do not always coincide with phonetic ones, as when they distinguish between phonetic entities like *nāda* and *śvāsa* on the one hand and sets of *ghoṣavat* and *aghoṣa* consonants in respect of phonological operations (section 2). Indian grammarians also recognize that phonological considerations can lead to conventions not strictly in accordance with phonetics. Thus, on account of its phonological behavior, short *a* is treated as though it were truly homogeneous with long *ā* (section 3.1); and the vowels *e*, *o*, acknowledged to be monophthongs, are treated as though they were diphthongs, again on the basis of phonological considerations (section 3.2). Moreover, there is evidence for accepting that what at first blush might appear to be strictly phonetic statements have been influenced by phonological considerations, as in the case of Āpiśali's description of speech production in the Āpiśalaśikṣā (section 4).

LECTURE II

BASES, AFFIXES AND MEANINGS

7. Introduction

7. 1. Pāṇini operates with a derivational system in which words (*pada*), nominal or verbal, are recognized as syntactic units. By

(87) A 1. 4. 14: सुप्तिङन्तं पदम् ।

an element that terminates in a nominal or verbal ending is called *pada*. It is well known that Pāṇini derives *padas* by introducing affixes (*pratyaya*) to given items (*prakṛti*). For example,

(88) A 4. 1. 1: ड्याप्प्रातिपदिकात् ।

is a section heading which provides that affixes introduced in subsequent rules occur with elements that end in feminine affixes *ī*, *ā* and with nominal bases (*prātipadika*). Among these affixes are nominal endings introduced in

(89) A 4. 1. 2: स्त्रौजसमौद्धृष्टाभ्यांभिसङ्भ्यांभ्यसङ्सिभ्यांभ्यसङ्सो-
साम्ङ्योस्सुप् ।

Affixes are also introduced to verbs (*dhātu*) by rules under the heading of:

(90) A 3. 1. 91: धातोः ।

Among such verbal affixes are endings introduced, as replacements for abstract L-affixes⁶⁹ in

(91) A 3. 4. 78): तिप्तस्झिसिप्थस्थमिब्वस्सस्तांश्चथासाथांश्चमिड्-
वहिमहिङ् ।

The sūtras (88) A 4. 1. 1-(91) A 3. 4. 78 come under the heading

(92) A 3. 1. 1: प्रत्ययः ।

69. A 3. 4. 77 : लृप् ।

which is valid through the fifth adhyāya : Elements introduced by rules of this section and which, according to

(93) A 3. 1. 2: परश्च ।

generally follow items they occur with have the class name *pratyaya*.

(88) A 4. 1. 1 and (90) 3. 1. 91 use the terms *prātipadika* and *dhātu* with reference to elements that take affixes. Other sūtras assign these class names to specified units, primitive and derived. According to

(94) A 1. 3. 1: भूवादयो धातवः ।

items of the set beginning with *bhū*, that is, the items listed in Pāṇini's *dhātupāṭha*, are called *dhātu*. The same class name applies to units derived with *saN* and other affixes introduced by a group of rules preceding

(95) A 3. 1. 32: सनाद्यन्ता धातवः ।

A meaningful item other than a verb, an affix or one that ends in an affix is called *prātipadika*:

(96) A 1. 2. 45: अर्थवदधातुरप्रत्ययः प्रातिपदिकम् ।

In addition, elements ending in *kṛt* or *taddhita* affixes as well as compounds also have the class name *prātipadika*:

(97) A 1. 2. 46: कृतद्धितसमासाश्च ।

In Pāṇini's grammatical system, *padas* such as *bhiṣajam*, *asti* are thus derived from given bases by introducing affixes: *bhiṣajam* consists of the *prātipadika* *bhiṣaj* and the ending *am*, *asti* contains the *dhātu* *as* followed by the ending *tiP*. Pāṇini also recognizes that one can attribute certain meanings to the constituents of such *padas*. In fact, he makes the signification of meaning the condition for introducing certain affixes. For example,

(98) A 2. 3. 2: कर्मणि द्वितीया ।

provides that the second triplet of nominal endings occurs if an object is to be signified. The *-am* of *bhiṣajam* is such an ending. According to

(99) A 3. 4. 69 : लः कर्मणि च भावे चाकर्मकेभ्यः ।

an L-affix follows a verb [see (90) A 3. 1. 91] to signify an agent or an object, if the act in question has an object, and an agent or the act alone if this has no object. The L-affix *lAT*⁷⁰ signifying an agent is introduced after *as* and then replaced by the ending *tiP* [see (91) A 3. 4. 78] in deriving *asti*.

Affixes of derived bases are introduced similarly. The derivatives *nāyaka* (< *ni-aka*), *netṛ* (< *ni-tr*) respectively contain the agentive suffixes *NvuL*⁷¹ and *trC*, introduced by

(100) A 3. 1. 133 : ण्वुल्चौ ।

which lets these occur with any verb. *NvuL* and *trC* are verbal affixes other than endings, so that according to

(101) A 3. 1. 93 : कृदतिङ् ।

they have the class name *kṛt*. And

(102) A 3. 4. 67 : कर्तरि कृत् ।

provides that a *kṛt* affix occurs if an agent is to be signified. The derived verb *cikīrṣa* (< *kṛ-san*) is formed with the suffix *saN*, by

(103) A 3. 1. 7 : धातोः कर्मणः समानकर्तृकादिच्छायां वा ।

which provides that *saN* optionally follows a verb under the following conditions: The verb denotes an act functioning as object of wishing, this act and wishing have the same agent, and 'wish, desire' is to be signified.

70. Any L-affix is introduced under the conditions given in (99) A 3. 4. 69. Particular affixes within this set are allowed to occur under various conditions of time reference and modalities. By A 3. 2. 123 : वर्तमाने लट् । *lAT* is introduced if the meaning signified by a verb is referred to current time; if a verb's meaning is referred to the past excluding the day on which one is speaking, however, *lAN* occur, by A 3. 2. 111 : अनद्यतने लङ् । Additional details concerning the distribution of L-affixes need not be considered here.

71. *ण्व* → *aka* by A 7. 1. 1 : य्वोरनाकौ ।

In sūtras cited above locative forms are used to give meanings that condition the introduction of affixes: *karmani* 'object', *kartari* 'agent', *icchāyām* 'wish'.⁷²

7. 2. Although Pāṇini presupposes that *padas* and other items have been analyzed into constituents, he does not describe in the *Aṣṭādhyāyī* any procedure for carrying out such an analysis. However, Pāṇinīyas describe a method for analyzing items into components and attributing particular meanings to these components. Moreover, there is no cogent reason for doubting that this was the analytic procedure which allowed Pāṇini to posit his bases and affixes.⁷³ The method involves inserting and removing elements in contexts, keeping an element constant while changing others, and reasoning from the continued presence (*anvaya*) and the absence (*vyatireka*) of components and meanings.⁷⁴ In general, an X can be considered the cause of a Y if Y is always preceded by X and the following both hold:

(a) If X occurs, Y occurs.

(b) If X is absent, Y is absent.

In particular, if X is a linguistic element and Y is the comprehension of a meaning M, one may conclude, reasoning from (a) and (b), that the speech unit in question is the cause for comprehending M, which is a meaning then attributed to that

72. According to A 2.3 37 : यस्य च भावेन भावलक्षणम् ।, a seventh-triplet (locative) nominal ending follows a nominal if what this denotes is involved in an act that serves to characterize another. The occurrence of affixes such as *am* is characterized by the meaning 'object' in that this meaning conditions the use of such an affix : the ending occurs when the meaning is to be signified.

73. Further, it is certain that pre-Pāṇinian grammarians had carried out analyses [see section 15. 2].

74. See 'Anvaya and vyatireka in Indian grammar', *ALB* 31-32 : 313-352 (1967-1968) and 'On reasoning from anvaya and vyatireka in early Advaita', pp. 79-104 of *Studies in Indian philosophy, A memorial volume in honour of Pandit Sukhlalji Singhvi*, edited by Dalsukh Malvania and Nagin J. Shah (Ahmedabad, 1981).

speech unit. For example, consider the words *bhiṣajam*, *bhiṣajah*, *ṛtvijam*, *ṛtvijah* in

(c) अपश्यद् भिषजम् । 'He saw the doctor'.

(d) अपश्यद् भिषजः । 'He saw the doctors'.

(e) अपश्यद् ऋत्विजम् । 'He saw the priest'.

(f) अपश्यद् ऋत्विजः । 'He saw the priests'.

(c) and (d) speak of one doctor and many doctors someone saw, so that they are objects of seeing; (e) and (f) speak of one priest and many priests as objects of seeing. (c)–(f) have in common *apaśyat*⁷⁵ and the meaning '... saw.' (c)–(d) and (e)–(f) share elements which set the two pairs apart: *bhiṣaj* in the first pair, *ṛtvij* in the second. Further, (c) and (e) have in common the element *am*, which follows *bhiṣaj* in (c), *ṛtvij* in (e); and the element *aḥ* follows *bhiṣaj*, *ṛtvij* in (d) and (f). By the procedure shown, then, (c)–(f) allow one to abstract the bases *bhiṣaj*, *ṛtvij*, to which are attributed the meanings 'doctor' and 'priest' respectively, as well as the affixes *am*, *as*,⁷⁶ two of a group of object-signifying endings. Though these endings share a meaning, moreover, they also differ in that the first is associated with singularity, the second with plurality.

7.3. The procedure sketched in section 7.2 requires that there be a constant relation between given items or sets of items and meanings: (a) and (b) must both hold with respect to abstracted elements or sets of elements and meanings attributed to them. Were it true that a meaning tentatively attributed to an item were understood even if that item did not occur, one could not conclude, reasoning from *anvaya* and *vyatireka*, that the meaning in question pertained to that item. Consider now

(g) अत्र तिष्ठति पयः । 'The milk is standing here'.

(h) पयः पिबति । 'He drinks milk'.

75. As is customary, I cite terms in their prepausal forms when considering them in isolation.

76. $-s \rightarrow -r \rightarrow -h$; see note 136.

(i) ओदनं पयसा सिञ्चति । 'He is moistening his rice with milk'.

From such utterances one can abstract a base *payas* 'milk', which is followed by the affix *ā* in (i). Further, (h) speaks of milk as an object of drinking. Moreover, there is no affix after *payas* in (h) as there is after *bhiṣaj* and *ṛtvij* in (c) and (e). Were one to say that the base *payas* can refer to milk as an object of an act without an affix, the reasoning used to attribute the meaning 'object' to a set of affixes, including *am* and *as*, would no longer be valid. This is obviously an undesirable state of affairs for a grammarian. On the other hand, one can maintain the analysis in which reasoning from *anvaya* and *vyatireka* plays a crucial role, by a stratagem: Posit complexes such as *payas-am*, similar to *bhiṣaj-am*, *ṛtvij-am*, then delete affixes to derive sentences such as (h). This is what Pāṇini does. He posits *payas-s* and *payas-am* in abstract strings from which (g) and (h) are derived, then provides in

(104) A 7. 1. 23: स्वमोर्नपुंसकात् ।

that the endings *sU* and *am* are replaced by zero after a neuter stem: *payas-s* → *payas* → *payas-am* → *payas*. See also section 9.

7.4. Reasoning from *anvaya* and *vyatireka* thus allows one to attribute particular meanings to bases, affixes and sets of such units. For example, *am* is one of a group of affixes to which the meaning 'object' is attributed. In addition, as shown in section 7.1, sūtras like (93) A 2. 3. 2 give such meanings as conditions for introducing such affixes to other items.

There are also affixes for which meanings are not explicitly stated (*anirdiṣṭārthāḥ*) in Pāṇinian sūtras. Pāṇinīyas from Kātyāyana on invoke a metarule, not formulated in the Aṣṭādhyāyī, according to which such affixes occur redundantly, in meanings proper to elements with which they are used.⁷⁷

77. अनिर्दिष्टार्थाः प्रत्ययाः स्वार्थे । This is *paribhāṣā* 113 in PIS⁷ and appears (usually with the verb form *bhavanti*) in other collections of *paribhāṣās*: number (Continued on the next page)

Although such affixes do not have meanings which they alone signify, they are nevertheless not considered meaningless. Instead, they are treated as redundantly meaningful in that meanings attributed to them are said to be signified properly by other elements. Pāṇinīyas refer to these as *svārthikāḥ pratyayāḥ* 'affixes with redundant meanings'.⁷⁸ In addition, they distinguish between affixes qualified simply as *svārthika* and others, which are said to be absolutely redundant (*atyantasvārthikāḥ*).

Since Pāṇini does not explicitly formulate the *paribhāṣā anirdiṣṭārthāḥ* ... (see note 77), the question arises whether he tacitly accepts the principle at issue. This question cannot be answered without considering the reasons given for accepting the metarule in the first place, to see whether these reasons are in harmony with general principles correctly attributable to Pāṇini. Hence, we must take up arguments which Pāṇinīyas propose in connection with the metarule *anirdiṣṭārthāḥ* These discussions involve another, historical question: Is there evidence to show that Pāṇinīyas differ among themselves in the way they interpret this *paribhāṣā*? All these questions, moreover, revolve about a single basic issue: Does the method of analysis which allows one to abstract affixes in the first place (see sections 7.2-7.3) require that all affixes be meaningful?

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90 of Puruṣottamadeva's *Paribhāṣāpāṭha* (160b), 125 of Śiradeva's *Bṛhatparibhāṣāvṛtti* (269), 114 of Nilakaṇṭha's *Paribhāṣāvṛtti* (313), 127 of Haribhāskara's *Paribhāṣābhāskara* (371), and 105 of Śeṣādri's *Paribhāṣābhāskara* (460). I have given within parentheses page references to K. V. Abhyankar's *Paribhāṣā-saṁgraha*. On the term *svārtha* see section 11.6.1.

78. I use *redundant* because this English term's meanings most closely approximate those of *svārtha* (section 11.6.1) and *svārthika* (see section 11.6.6 with note 293). An element is redundant if it repeats what is conveyed by another. Affixes such as those considered in sections 4.1-4.6 are technically redundant in that they are considered only to cosignify meanings attributed to elements with which they are used, but they are not absolutely superfluous. Affixes such as those considered in sections 10.1-10.4 are absolutely redundant.

8. As I pointed out in section 7. 1, there are sūtras in which Pāṇini uses locative forms with reference to meanings of affixes. There are also affixation rules with locative forms used in reference to meanings which are said to pertain to bases and therefore not to be meanings proper to the affixes. Let us now consider such rules and what is said about them in the Mahābhāṣya.

8. 1. The sūtra

(105) A 4. 1. 3: स्त्रियाम् ।

heads a section of rules that introduce feminine affixes. For example, by

(106) A 4. 1. 4: अजायतष्टाप् ।

the affix *TāP* follows nominal bases of the ordered set beginning with *aja* 'goat' and other bases in -ā not in this group. Thus, *ajā* 'female goat' is derived from *aja* with *TāP*: *aja-ā* → *ajā*. The term *stri* (loc. sg. *striyām*) of (105) 4. 1. 3 can be considered to denote the property femininity or a thing that has this property. Moreover, one can consider femininity either a necessary qualifier (*viśeṣaṇa*) or an incidental qualifier (*upalakṣaṇa*) in relation to a nominal base and its meaning; that is, one may say that femininity is part of the total meaning of a base such as *aja* or that, though a given word's referent be something qualified by femininity, this property is not necessarily included in the meaning of the base itself.⁷⁹ In addition, there are two possible interpretations of *striyām*. This can be an absolute locative of the type *karmaṇi* in (98) A 2. 3. 2 (see section 7. 1 and note 72). It can also be interpreted as signifying a locus,⁸⁰

79. PM III. 272: ...यदा गुणमात्रे स्त्रीशब्दो वर्तते तदा द्रव्यवाचिनः प्रातिपदिकात् स्त्रीत्वेऽभिधेये टावादयो भवन्तीति स्त्रीत्वं प्रत्ययार्थं इति पक्षो भवति । यदा तु स्त्रीत्वयुक्तं द्रव्यं स्त्रीशब्देनोच्यते तदा परं पक्षद्वयं सम्भवति स्त्रीत्वमुपलक्षणं विशेषणं वेति । Cf. Nyāsa III. 272, Pr. III. 452.

80. A 2. 3. 36: सप्तम्यधिकरणे च । lets a locative ending follow a nominal when a locus (*adhikaraṇa*) is to be signified. Among the different types of loci recognized, there is a locus of domain (*vaiśayikam adhikaraṇam*), which is

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specifically a domain (*viṣaya*), a meaning in which a base occurs. There are, then, three possible interpretations of sūtras headed by (105) A 4.1.3 :

(A) *TāP* and other affixes introduced in these rules occur when femininity is to be signified.

(B) *TāP* etc. follow a nominal base that is coreferential with one whose referent is something qualified by femininity.

(C) *TāP* etc. occur after a nominal base which is used to denote a feminine entity, one of the base's meanings.⁸¹

Under (A), *striyām* is interpreted as an absolute locative form of *stri* 'femininity', and femininity is considered the meaning of *TāP* and the other affixes in question. Under (B) and (C), *striyām* denotes a domain and the term *stri* refers to a thing qualified by femininity. The two interpretations differ in that under (B) femininity is an incidental qualifier but under (C) this is a necessary qualifier.

Interpretations (A) and (B) are first considered in the Mahābhāṣya. Against (A), Kātyāyana raises the following objections in his first vārttika on (105) A 4.1.3 : Dual and plural endings cannot be accounted for after items with *TāP* etc., and it is not possible to justify the occurrence of more than one such affix simultaneously.⁸² For example, *kumārī* (< *kumāra-i*)

(Continued from the last page)

not involved in any real contact or proximity. In the Mahābhāṣya on A 3.1.26 Patañjali remarks that in the grammar there are locative forms which denote domains, and one of the examples he gives is *striyām* of (105) A 4.1.3, interpreted as designating the meaning in which a nominal base occurs when feminine affixes are introduced : Bh. II. 31.10-11 : भवन्तीह हि विषयसप्तम्योऽपि । तद्यथा ... स्त्रियां यत् प्रातिपदिकं वर्तते इति । Cf. Bh. I. 88.21-23 (on A 1.1.27); Vṛtti on VP 1.26 (VPb 73.4).

81. The first two interpretations are brought up in Bh. II. 198.20-21 : कथं पुनरिदं विज्ञायते । स्त्रियामभिधेयायां टाबादयो भवन्तीति । आहोस्वित् स्त्रीसमानाधिकरणात् प्रातिपदिकादिति । The third interpretation is brought up on vārttika 5 on (105) A 4.1.3 and the Bhāṣya thereon; see below with note 91.

82. A 4.1.3 vt. 1 : स्त्रियामिति स्थित्याभिधाने चेद् टाबादयो द्विवचनबहुवचनानेकप्रत्ययानुपपत्तिः ।

has the suffix *ñiP*.⁸³ Under (A), this affix denotes femininity, which is then the principal meaning of *kumārī*. Since femininity is a single entity, then, only a singular ending can obtain with a term like *kumārī*, although forms such as *kumāryau* and *kumāryaḥ* (< *kumārī-au*, *kumārī-as*), with dual and plural endings, have also to be derived.⁸⁴ Kātyāyana's second objection concerns derivatives such as *gārgyāyañi*, which have more than one feminine affix. The feminine suffix *Ṣpha* is added to *gārgya*, which contains the patronymic affix *yañ*,⁸⁵ then *ñiṣ* is added to *gārgyāyaṇa*.⁸⁶ Under (A), an affix introduced by a rule of the section which (105) A 4. 1. 3 heads denotes femininity, which is a single entity. Consequently, once such an affix is used a second one should not be used, by virtue of a redundancy principle which applies in the case of affixes that signify meanings: If the meaning of such an affix is otherwise signified, it is not used.⁸⁷ In his third vārttika on (105) A 4. 1. 3, Kātyāyana raises an objection against (B): This allows affixes to apply too widely in

83. A 4. 1. 20 : वयसि प्रथमे ।

84. Bh. II. 198. 24-26 : स्त्रियामिति स्वयर्थाभिधाने चेद् टावादयो भवन्ति द्विवचन-बहुवचनयोरनुपपत्तिः । कुमार्यौ कुमार्यः ... किं कारणम् । एकोऽयमर्थः स्त्रीत्वं नाम तस्यैकत्वादेकवचनमेव प्राप्नोति । The occurrence of endings called *ekavacana*, *dvivacana*, and *bahuvacana* — that is, of singular, dual, and plural endings — is provided for in A 1. 4. 21-22 : बहुषु बहुवचनम् । द्व्येकयोर्द्विवचनैकवचने । Plural endings occur if many things are spoken of, dual and singular endings respectively if one speaks of two things or one.

85. A 4. 1. 105 : गर्गादिभ्यो यञ् । 4. 1. 17 : प्राचां ष्फ तद्धितः । *ph* → *āyan* by A 7. 1. 2 : आयनेयीनीयियः फढखच्छष्ठां प्रत्ययादीनाम् ।

86. A 4. 1. 41 : विद्गौरादिभ्यश्च ।

87. Bh. II. 198. 26-199. 3 : अनेकप्रत्ययानुपपत्तिश्च । अनेकश्च प्रत्ययो नोपपद्यते । गार्गायणी ... किं कारणम् । एकत्वात् स्त्रीत्वस्य । एकोऽयमर्थः स्त्रीत्वं नाम तस्यैकेनोक्तत्वाद् द्वितीयस्य प्रयोगेन न भवितव्यम् । किं कारणम् । उक्तार्थानामप्रयोग इति । I cannot consider here whether the redundancy principle invoked here, elsewhere in the Mahābhāṣya, and by others is valid, but this is not crucial to the present discussion. I also omit dealing with what is brought up in Kātyāyana's second vārttika on (105) A 4. 1. 3.

the case of terms such as *bhūta*.⁸⁹ One should have a sentence like

(j) भूतमियं ब्राह्मणी । 'This Brāhmaṇa woman is an evil spirit incarnate'

with the neuter *bhūtam* (nom. sg.). Although *bhūtam* is here coreferential with *brāhmaṇī*, which refers to a female and has an overt feminine affix, the base *bhūta* should not take feminine affix.⁸⁹

These faults do not obtain under interpretation (C). According to this interpretation, *kumāra* does not have the restricted meaning 'young boy'. The meaning 'virgin girl' is also attributed to this base, after which *ṆiP* is introduced if the nominal is used with reference to a young person qualified by femininity. There can of course be two or more such qualificands, so that it is perfectly in order that dual and plural endings occur with *kumārī*. Moreover, under (C), affixes such as *Ṣpha* and *ṆiṢ* are not signifiers (*vācaka*) of any meaning. They are cosignifiers (*dyotaka*) of part of a complex of meanings attributed to a nominal base, and they serve, together with such a base, to bring out (*dyut* 'illuminate') the meaning in question. There is no redundancy principle that precludes the use of such

88. A 4. 1. 3 vt. 3 : स्त्रीसमानाधिकरणादिति चेद् भूतादिष्वतिप्रसङ्गः ।

89. Bh. II. 199. 8 : स्त्रीसमानाधिकरणादिति चेद् भूतादिष्वतिप्रसङ्गो भवति । भूतमियं ब्राह्मणी ... Patañjali goes on (Bh. II. 199. 9-12) to give two more examples and to explain how no fault obtains in regard to these sentences under interpretation (A). Thus, when *bhūta* is used in (j), one does not mean thereby to express femininity. On the contrary, one intends to express the property of being a demon, attributed to the woman in question. Similarly, when *kāraṇa* is used in कारणमियं ब्राह्मणी । 'This Brāhmaṇa woman is the cause' and *āvapaṇa* is used in आवपनमियमुष्टिका । 'This *uṣṭrikā* is a vessel' one intends to express that a certain woman is the chief individual spoken of and that the earthen wine jug called *uṣṭrikā* is an object that contains something : कारणमियं ब्राह्मणीति । आवपनमियमुष्टिकेति । स्वयर्थाभिधाने पुनष्टावादिषु सत्त्विह तावद् भूतमियं ब्राह्मणीति नात्र स्त्रीत्वं विवक्षितम् । किं तर्हि । पौतन्यम् । कारणमियं ब्राह्मणीति नात्र स्त्रीत्वं विवक्षितम् । किं तर्हि । प्राधान्यम् । आवपनमुष्टिकेति नात्र स्त्रीत्वं विवक्षितम् । किं तर्हि । सम्भवनम् ।

an affix. One can use two affixes simultaneously to cosignify the base meaning feminine just as one can use more than one lamp to illuminate what is in a room.⁹⁰ Interpretation (C) is also free from the objection raised against (B). The base *bhūta* does not have as part of its meaning the qualifying property, femininity, so that it is not followed by an affix which cosignifies this property, although in a sentence such as (j) *bhūtam* does indeed refer to a feminine being. Thus, (C) is preferable to the other possible interpretations of (105) A 4. 1. 3. And Kātyāyana does in fact go on to say that *stri* in this sūtra states a qualification of a nominal base, so that *ṬāP* and other affixes are allowed to occur redundantly, in a meaning proper to nominal bases.⁹¹

90. Nyāsa III. 273 : प्रकृत्यर्थविशेषणपक्षे तु प्रातिपदिकेन स्त्रीत्वविशिष्टं द्रव्यमेवोच्यते टाबादयस्तु द्योतका इति । PM III. 273 : यथैव च प्रातिपदिकेनोक्तेऽपि स्त्रीत्वे टाबादयो भवन्ति तथानेकोऽपि प्रत्ययो नानुपपन्नः । तद्यद्योतको हि तदा नानाप्रत्ययः । प्रदीपादेश्चानेकस्यापि द्योतकत्वं दृष्टम् । Cf. also Pr. III. 453. The wording of a vārttika such as A 4. 1. 3 vt. 5 (see below with note 91) is best understood under the assumption that the distinction between meanings to be signified (*vācya*) and cosignified (*dyotya*) was observed by Kātyāyana. Indeed, there is evidence to show that Pāṇini made this distinction; see section 9.

91. A 4. 1. 3 vt. 5 : सिद्धं तु स्त्रियाः प्रातिपदिकविशेषणत्वात् स्वार्थे टाबादयः । Bh. II. 199. 19-22 : सिद्धमेतत् । कथम् । प्रातिपदिकविशेषणत्वात् । प्रातिपदिकविशेषणं स्त्रीग्रहणं स्वार्थिकाष्टादयः । नैवं विज्ञायते स्त्रियामभिधेयामिति नापि स्त्रीसमानाधिकरणादिति । कथं तर्हि । स्त्रियां यत् प्रातिपदिकं वर्तते तस्माद् टाबादयो भवन्ति । कस्मिन्नर्थे । स्वार्थे इति । Note that the answer स्वार्थे to the question कस्मिन्नर्थे 'In what meaning?' can refer, in the present context, only to a meaning of the base itself after which a feminine affix is introduced. For interpretation (A), according to which *ṬāP* etc. would indeed signify femininity, has been rejected. Moreover, in comparable passages Patañjali explicitly says that a meaning does not pertain to an affix (see note 102). The Mahābhāṣya has कस्मिन्नर्थे and not कस्यार्थे 'In the meaning of what (item)?', not because Patañjali or any other Pāṇinīyas holds that *svārtha* here refers to a meaning which the affixes in question have as their own but because, once it has been accepted that these affixes do not signify meanings of their own, one must ask what meaning conditions their occurrence. I have translated as shown merely for convenience, to avoid a contorted English construction. More precisely, this is to be understood as an absolute locative construction (cf. note 72) involving a condition under which affixes occur.

To be sure, arguments are subsequently proposed in defense of interpretation (A).⁹² However, the fact is that one does not always have an affix associated with the meaning in question; for example, *dr̥ṣad* 'stone' and *vāc* 'speech' take no feminine affix. Moreover, even when one does find a feminine affix used with a base, the meaning one could assign to the affix is a qualifier, not a qualificand as in the case of other affix meanings.⁹³ Consequently, it is best to adopt interpretation (C). Under this interpretation, affixes like *ṬāP* do not have a meaning proper to them. As Patañjali says (see note 91), they are *svārthika* affixes.

8. 2. A sequence of arguments similar to those considered in section 8. 1 has to do with rules in the large section which

(107) A 4. 1. 76 : तद्धिताः ।

heads. Affixes introduced in sūtras of this section are called *taddhita*. A subsection of *taddhita* affix rules is headed by

92. Bh. II. 199. 22ff. It is not necessary to consider the arguments here.

93. These points are made by commentators. For example, in his *Paddhat* to the *Vṛtti* on VP 1. 26 (VPb 73. 13-14), Vṛṣabha notes that one can take the position that femininity is a meaning of a nominal after which a feminine affix is added because in the case of terms like *dr̥ṣad* one reaches an understanding of this meaning even without such an affix : अन्तरेणापि प्रत्ययं दृषदादौ स्वार्थविज्ञायात् प्रकृत्यर्थपक्ष इति । Under SK 454, Bhaṭṭoji (SK I. 495) explains that (106) A 4. I. 4 lets *ṬāP* occur when femininity, which is a meaning signified by the bases in question, is to be cosignified : अजादीनामकारान्तस्य च वाच्यं यत् स्त्रीत्वं तत्र द्योत्ये दाप् स्यात् । Commenting on तत्र द्योत्ये 'when that is to be cosignified', Nāgeśa (S'ekhara II. 522) gives reasons why Bhaṭṭoji says femininity is merely cosignified by *ṬāP*. If this were the meaning of the affix itself, it would undesirably be a qualificand, but it is made clear in the source text (cf. A 4. 1. 3 vt. 5 with Bhāṣya, note 91 above) that cosignified femininity is only a qualifier. Moreover, in the case of nominals like *vāc*, one understands this meaning even without an affix such as *ṬāP* : तत्र द्योत्ये इति । प्रत्ययार्थत्वे हि तस्य विशेष्यतापत्तिः । द्योत्यस्य तु विशेषणत्वमेवेति स्पष्टमाकरे । वागादिषु विनापि दावादिकं तस्य बोधाच्च । See also section 9.

(108) A 5. 3. 70 : प्राणिवात्कः ।

Except as otherwise provided for, sūtras in this section introduce the taddhita affix *ka*, under stated conditions. Two rules that give conditions under which *ka* occurs are

(109) A 5. 3. 73 : अज्ञाते ।

(110) A 5. 3. 74 : कुत्सिते ।

Two interpretations of such rules are first considered in the Bhāṣya on (110) A 5. 3. 74 :

(A) An affix occurs in the meaning of *kutsita* etc.

(B) An affix is introduced after a nominal base⁹⁴ that is coreferential with a term which refers to something scorned (*kutsita*), unknown (*ajñāta*) or such.⁹⁵

Under (A), terms such as *kutsita* are neuter action nouns,⁹⁶ and acts which *kutsita* etc. denote are said to be signified also by affixes like *ka* in derivatives such as *paṭuka* 'vilely sharp, considered not to be really sharp'. Kātyāyana levels an objection against (A): If this interpretation is adopted, it is not possible properly to account for different genders and numbers associated with derivatives.⁹⁷ For example, the derivate *paṭuka* should have forms connected with various genders and numbers: *paṭukam*, *paṭukā*, *paṭukah*, *paṭukau*, *paṭukāḥ*, etc. However, the meaning attributed to *ka* introduced by (110) A 5. 3. 74 under interpretation (A), namely the act of scorning, is a single entity associated

94. Some taddhita affixes are introduced after nominal bases (*prātipadika*: (96)–(97) A 1. 2. 45–46, section 7. 1). However, in accordance with (116) A 4. 1. 82 (section 8. 5), most taddhita affixes follow padas ((87) A 1. 4. 14). Ablative forms such as *ataḥ* of (119) A 4. 1. 95 are construed with *prātipadikāt* of (88) A 4. 1. 1 and refer to particular types of nominal bases that form padas to which taddhita affixes are added.

95. Bh. II. 424. 8–9 : कथं पुनरिदं विज्ञायते । कुत्सितादीनामर्थे इति । आहोस्वित् कुत्सितादिसमानाधिकरणात् प्रातिपदिकादिति ।

96. These are derived with the suffix *Kta* by A 3. 3. 114 : नपुंसके भावे क्तः । which specifies *napuṃsake* 'neuter' in addition to *bhāve*.

97. A 5. 3. 74 vt. 1 : कुत्सितादीनामर्थे चेद्भिन्नवचनयोरनुपपत्तिः ।

with neutrality (see note 96), so that the possibility obtains, wrongly, that only singular endings may occur with a derivate like *paṭuka*.⁹⁸ Kātyāyana goes on to remark that (B) is subject to the objection raised against interpretation (B) of (105) A 4. 1. 3.⁹⁹ One should account for expressions such as इदं घृतकम् 'this (is) vile ghee' इदं तैलकम् 'this (is) vile oil'. Under (B), *ka* would also be introduced after the pronominal *idam*, since this base is here coreferential with terms referring to scorned things.¹⁰⁰

In view of these objections, a third interpretation is given:

(C) A sūtra such as (110) A 5. 3. 74 introduces an affix redundantly (*svārthe*) after a nominal base, on condition that the base denote something connected with a property in respect of which one speaks of that thing as being scorned and such.¹⁰¹

The Bhāṣya on vārttika 3 to (110) A 5. 3. 74 first takes this to suggest a new formulation, which is considered objectionable, since, although it achieves what is required, it results in a sūtra such as (110) A 5. 3. 74 being modified; sūtras as formulated by Pāṇini should account for what is required. An interlocutor immediately remarks that the sūtra in question should remain as stated. Moreover, even without modification, a rule such as (110) A 5. 3. 74 is not really subject to objection, since a meaning such as that denoted by *kutsite* is not considered in

98. Bh. II. 424. 11-12 : कुत्सितादीनामर्थे चेद्भिन्नवचनयोरनुपपत्तिः । पटुकम् पटुका पटुकः पटुकौ पटुका इति । एकोऽयमर्थः कुत्सितं नाम तस्यैकत्वाद्वचनमेव प्राप्नोति ।

99. A. 5. 3. 74 vt. 2 : कुत्सितादिसमानाधिकरणादिति चेदतिप्रसङ्गो यथा टाबादिषु । See note 88.

100. Bh. II. 424. 15-18 : कुत्सितादिसमानाधिकरणादिति चेदतिप्रसङ्गो भवति यथा टाबादिषु । कथं च टाबादिषु । उक्तं तत्र स्त्रीसमानाधिकरणादिति चेद् भूतादिष्वतिप्रसङ्ग इति । एवमिहापि कुत्सितादिसमानाधिकरणादिति चेदतिप्रसङ्गो भवति । इदं घृतकम् इदं तैलकम् । इदंशब्दादपि प्राप्नोति ।

101. A 5. 3. 74 vt. 3 : सिद्धं तु येन कुत्सितादिवचनं तद्युक्तात्स्वार्थे प्रत्ययविधानात् । Bh. II. 424. 20-21 : सिद्धमेतत् । कथम् । येन कुत्सितादयोऽर्था गम्यन्ते तद्युक्तात्स्वार्थे प्रत्ययो भवतीति वक्तव्यम् । The instrumental *gena* is to be understood here as used

(A), namely the act of scorning, is a single entity associated affix's meaning (*pratyayārtha*). On the contrary, it is intended to be understood as a qualification of a base's meaning (*prakṛtyarthaviśeṣaṇa*). That is, *ka* by this rule follows a nominal used to denote something qualified as scorned, reviled, held in contempt, and the affix is introduced redundantly with respect to this qualification, in a meaning proper to the nominal itself (*svārthe*),¹⁰² a meaning which the affix serves to cosignify.¹⁰³ For example, *ghṛta* of itself denotes ghee in general, whatever particular qualities this may have. If this base is meant to refer to a particular ghee that is scorned because it is acrid,

(Continued from the last page)

with reference to a cause (A 2.3.53 : हेतौ ।), something on account of which scorning and such are understood. As Kaiyaṭa remarks (Pr. IV. 236–237), what Kātyāyana and Patañjali mean is this : An affix is introduced redundantly after a nominal base that denotes something connected with a property on account of which there is scorning or such of the thing referred to : सिद्धं चिति । येन धर्मेण कुत्सादयस्तद्वर्मेयुक्तार्थाभिधायिनः स्वार्थे प्रत्ययविधानमित्यर्थः । See also note 103. Nāgeśa (Ud. IV. 236–237) gives the example *aśvaka*, with *ka* after *aśva* because this base now refers to a horse that is contemptible since it does not carry out well acts which horses should carry out, such as running : येन धर्मेणेति । यथाश्वक इत्यादौ अश्वसाध्यधावनादेः सम्यगननुष्ठानादिनेत्यर्थः । See also note 104.

102. Bh. II. 424. 21–24 : सिध्यति । सूत्रं तर्हि भिद्यते । यथान्यासमेवास्तु । ननु चोक्तं कुत्सितादीनामर्थे चेष्टिङ्गवचनानुपपत्तिरिति । नैष दोषः । नायं प्रत्ययार्थः । किं तर्हि । प्रकृत्यर्थविशेषणमेतत् । कुत्सितादिषु यत् प्रातिपदिकं वर्तते तस्मात्कादयो भवन्ति । कस्मिन्नर्थे । स्वार्थे इति । See also notes 91, 109.

103. In his introduction to VP 3.14.1 (VPe 149.11–13), Helārāja explains what is meant by Vārttika 3 to (110) A 5.3.74 as follows. The affixes *ka* and *va* etc. are to be introduced after a nominal base which denotes something connected with a property on account of which scorning and such are conveyed, and these affixes are introduced redundantly, only to bring out this scorning etc., since the meaning in question is signified by the nominal itself : येन धर्मेण कुत्सादयः प्रतिपाद्यन्ते तद्वर्मेयुक्तार्थाभिधायिनः प्रातिपदिकात् तेनैव कुत्सादेरुपादानात्तद्व्योतनाय स्वार्थे कनादयः प्रत्यया विधेया इति वार्त्तिकार्थः ।

ōñe uses *ghṛtaka*, with the cosignifier *ka*.¹⁰⁴ Moreover, remarks Patañjali, affixes which are thus *svārthika* form derivatives that generally follow the gender and number of bases to which they are added, so that one has *ghṛtakam* and other neuter forms.¹⁰⁵

8. 3. Meanings given in other taddhita affix rules also are considered qualifiers of base meanings. One additional example will suffice to illustrate.

(111) A 5. 3. 67 : ईषदसमाप्तौ कल्पब्देश्यदेशीयरः । introduces the affixes *kalpaP*, *deśya*, *deśiyaR* and specifies a meaning : *īṣadasamāptau* 'slight incompleteness'. In his first vārttika on this sūtra,¹⁰⁶ Kātyāyana raises the following objection: Since *īṣadasamāpti* has an act as its principal meaning, the rule does not properly account for different genders and numbers in derivatives. For example, one should account for *paṭukalpaḥ*, *paṭukalpau*, *paṭukalpāḥ*, used with reference to one, two, and many things that are less than completely sharp. However, since the chief meaning of *īṣadasamāpti* is an action, a single entity, only singular endings obtain, wrongly.¹⁰⁷ In his second vārttika on

104. In a phrase such as इदं घृतकम् (see above with note 100), *ghṛtakam* refers to ghee that is scorned because it is acrid or has some similar undesirable quality, and *idam* 'this' is used to refer to something as an object of immediate perception, which is before one. In the particular context of this phrase, *idam* does indeed refer to ghee, but it refers to this only as something present, not as acrid ghee, so that there is no question of this pronominal taking the suffix *ka*. So also in other instances : *idam* or any other nominal takes an affix like *ka* only if its own meaning is qualified in the appropriate manner. This, says Nāgeśa (Ud. IV. 237), is what Kaiyaṭa intends to convey in the Pradīpa passage cited above (note 101) : घृतादिशब्द-सन्निधान इदंशब्दः । प्रत्यक्षविषयत्वेनैव तद्वोधको न तु कटुघृतत्वादिनेति भावः ।

105. Bh. II. 424. 24 : स्वार्थिकाश्च प्रकृतितो लिङ्गवचनान्यनुवर्तन्ते । Cf. note 110.

106. A 5. 3. 67 vt. 1 : ईषदसमाप्तौ क्रियाप्रधानत्वाल्लिङ्गवचनानुपपत्तिः ।

107. Bh. II. 419. 9-10 : ईषदसमाप्तौ क्रियाप्रधानत्वाल्लिङ्गवचनयोरनुपपत्तिः । पटुकल्पः पटुकल्पौ पटुकल्पा इति । एकोऽयमर्थः ईषदसमाप्तिर्नाम तस्यैकत्वादेकवचनं प्राप्नोति । Since *īṣadasamāpti* is a feminine derivative [(122) A 3. 3. 94, section 9], moreover, only feminine forms such as *paṭukalpā* would be allowed, according to the objection raised.

(111) A 5. 3. 67¹⁰⁸ Kātyāyana argues that the rule successfully accounts for the required forms, since *iṣadasamāpti* states a qualification of a base's meaning, not an affix's meaning. The sūtra interpreted provides that *kalpaP*, *deśya*, or *deśīyaR* follows a base used in the same 'slight incompleteness', that is, which refers to something qualified by a certain lack, so that the affixes occur in a meaning proper to their bases.¹⁰⁹ The Bhāṣya on vārttika 2 to (111) A 5. 3. 67 ends by saying that *svārthika* affixes form derivatives that follow the gender and number of bases to which they are added.¹¹⁰

8. 4. As I have pointed out in sections 8. 2-8. 3, the Mahābhāṣya on (110) A 5. 3. 74, (111) A 5. 3. 67 invokes a general principle: Derivates with *svārthika* affixes follow the gender and number of items to which they are added (see notes 105, 110). It is impossible to maintain, however, that this principle always holds.

8. 4. 1. Consider now

(112) A 5. 3. 86 : हस्वे ।

(113) A 5. 3. 88 : कुटीशमीशुण्डाभ्यो रः ।

The latter introduces the affix *ra* after *kuṭī* 'house', *śamī* 'Sami tree', *śuṇḍā* 'elephant's trunk'. (112) A 5. 3. 86 gives a meaning associated with *ra* and other affixes, 'short, small'. Pāṇinīyas agree that *ra* introduced by (113) A 5. 3. 88 is *svārthika*: *ra* follows *kuṭī*, *śamī*, *śuṇḍā* if these are used with reference to object qualified as small. By the principle under discussion, one would allow **kuṭīrā* etc. instead of *kuṭīraḥ* etc. To allow for the proper derivatives, then, Kātyāyana suggests that

108. A 5. 3. 67 vt. 2 : प्रकृत्यर्थविशेषणत्वात्सिद्धम् ।

109. Bh. II. 419. 12-14 : सिद्धमेतत् । कथम् । नायं प्रत्ययार्थः । किं तद्धि । प्रकृत्यर्थविशेषणमेतत् । ईषदसमाप्तौ यत् प्रातिपदिकं वर्तते तस्मात्कल्पवादो भवन्ति । कसिन्नर्थे । स्वार्थ इति । Cf. notes 91, 102. The same things are said also in the Mahābhāṣya on A 5. 3. 66 (Bh. II. 418. 6-9).

110. Bh. II. 419. 14 : स्वार्थिकाश्च प्रकृतिती लिङ्गवचनान्यनुवर्तन्ते । Cf. note 105. The same thing is said also in the Mahābhāṣya on A 5. 3. 66 (Bh. II. 418. 10).

something be added to (113) A 5. 3. 88: In conjunction with the affix *ra*, *kuṭi* etc. are treated as masculine.¹¹¹ As Patañjali remarks, this suggestion is made on the assumption that the principle in question always holds: Derivates with *svārthika* affixes follow the gender and number associated with bases to which the affixes are added.¹¹² Kātyāyana goes on, however, to retract the suggested addition to (113) A 5. 3. 88, alluding to what is said elsewhere,¹¹³ namely that derivates with *svārthika* affixes also deviate from the gender and number of the items to which the affixes are added.¹¹⁴ It will suffice here to treat one of the passages where this is said.

According to

(114) A 3. 3. 43: कर्मव्यतिहारे णच् स्त्रियाम् ।

the suffix *NaC* follows a verb when an abstract act characterized by femininity is to be signified, provided there is also understood that an exchange of the act in question takes place, that people perform it for each other. This is one of a group of rules that apply to form derivates like *vyāvakrośi* 'exchange of (insulting) cries.' In addition,

(115) A 5. 4. 14: णच् स्त्रियाम् ।

introduces the taddhita affix *añ* after an element that ends in *NaC*, and the feminine suffix *ñiP* is added to an item which ends with *añ*.¹¹⁵ Now, a question is posed in the Mahābhāṣya concerning (115) A 5. 4. 14: What purpose does the use of

111. A 5. 3. 88 vt. 1: कुटीशमीशुण्डाभ्यः प्रत्ययसंनियोगेन पुंवद्वचनम् ।

112. Bh. II. 427. 3-5: कुटीशमीशुण्डाभ्यः प्रत्ययसंनियोगेन पुंवद्वचनो वक्तव्यः । कुटी कुटीरः । शमी शमीरः । शुण्डा शुण्डार इति । किं पुनः कारणं न सिध्यति । स्वार्थिकोऽयं स्वार्थिकाश्च प्रकृतितो लिङ्गवचनान्यनुवर्तन्ते ।

113. A 5. 3. 88 vt. 2: उक्तं वा ।

114. Bh. II. 427. 7: किमुक्तम् । स्वार्थिका अतिवर्तन्तेऽपि लिङ्गवचनानीति । The Paribhāṣā क्वचित् स्वार्थिकाः प्रकृतितो लिङ्गवचनान्यतिवर्तन्ते ।, providing that the deviation noted occurs in some instances, is number 83 of Nāgeśa's *Paribhāṣendusekhara* and is found in other collections of Paribhāṣās as well; see K. V. Abhyankar's *Paribhāṣāsamgraha* p. 472, No. 149.

115. A 4. 1. 15: टिड्ढाणञ्द्वयसज्द्वयञ्मात्रचतुष्टयपठकृञ्कृञ्करपः ।

stri (loc. sg. *striyām*) have in this sūtra; for is the affix which the rule introduces not *svārthika*? By the principle that derivatives with such affixes follow the gender and number of the bases to which the affixes are added, *añ* introduced to a term with *NaC* by (114) A 3. 3. 43 would form a derivate characterized by femininity, so that *striyām* in (115) A 5. 4. 14 would seem to have no purpose. Hence, a conclusion is drawn: By including *striyām* in this sūtra, Pāṇini makes known that derivatives with *svārthika* affixes also deviate from the gender and number of elements to which the affixes are added.¹¹⁶

116. Bh. II. 432. 7. 10 : स्त्रीग्रहणं किमर्थं न स्वार्थिकोऽयं स्वार्थिकाश्च प्रकृतितो लिङ्गवचनान्यनुवर्तन्ते । एवं तर्हि सिद्धे सति यत् स्त्रीग्रहणं करोति तज्ज्ञापयत्याचार्यः स्वार्थिका अतिवर्तन्तेऽपि लिङ्गवचनातीति । किमेतस्य ज्ञापने प्रयोजनम् । गुडकल्पा द्राक्षा तैलकल्पा प्रसन्ना पयस्कल्पा यवागूरित्येतत् सिद्धं भवति । The reason for making known that there can be such deviation in gender and number, says Patañjali, is to account for sentences like गुडकल्पा द्राक्षा 'The grape is just about sugar', तैलकल्पा प्रसन्ना 'The liquor is like oil', पयस्कल्पा यवागूरः 'The gruel is just about water'. Although *guḍa* 'raw sugar' is masculine and *taila* 'oil', *payas* 'water, milk' are neuter, the derivatives *guḍakalpa*, *tailakalpa* and *payaskalpa*, with *kalpaP*. by (111) A 5. 3. 67 (section 8. 3), do not have to agree with these bases in respect of gender: *guḍakalpā*, *tailakalpā* and *payaskalpā* of the examples cited agree in gender with *drākṣā*, *prasannā* and *yavāgū*. The same examples are also given in another context, in the Mahābhāṣya to Vārttika 3 on (111) A 5. 3. 67 (Bh. II. 419. 16-17). Now, as shown in section 8. 3, Kātyāyana says in his second vārttika to the sūtra in question that *ṣada-samāptau* is used with reference to a qualification of a nominal base's meaning, so that an affix like *kalpaP* is introduced in the meaning of such a base. In his third vārttika on the rule (प्रकृत्यर्थे चेद्विङ्गवचनानुपपत्तिः ।), Kātyāyana presents an argument against this position: One cannot then account for the gender and number of derivatives with the affixes *kalpaP* etc. As Patañjali points out, *guḍakalpā*, *tailakalpā* and *payaskalpā* in examples cited above are associated with feminine gender, but this cannot be accounted for properly under the view proposed, since *guḍa*, *taila* and *payas* are not associated with this gender. Later in the Mahābhāṣya on (111) A 5. 3. 67 (Bh. II. 419. 23-24), Patañjali again remarks that by saying *striyām* in (115) A 5. 4. 14 Pāṇini makes known that derivatives with *svārthika* affixes also deviate from the gender and number

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Of course, once this is accepted one of the claims made in the Bhāṣya on (110) A 5. 3. 74, (111) A 5. 3. 67 cannot be maintained. It is true that the former sūtra should allow for a derivate such as *paṭuka* used in all genders and *ghṛṭaka* used exclusively as a neuter. One cannot claim, however, that this is accounted for by a general principle that derivatives with *svārthika* affixes always follow the number and gender of the items with which the affixes occur, since this principle is not exceptionless. By the same token, it is not possible to say that a derivate like *paṭukalpa*, with *kalpaP* according to (111) A 5. 3. 67, has different genders and numbers by virtue of the principle noted. On the contrary, the facts in question are accounted for otherwise.

8. 4. 2. *Paṭu* denotes a property and something qualified by this property. This is one of the class of items which Pāṇini and Pāṇinīyas call *guṇavacana*. Such terms are coreferential with other terms referring to qualified entities, as in शुक्लः पटः, where both *śuklaḥ* and *paṭaḥ* refer to a piece of cloth that is white, or शुक्लं वस्त्रम्, where *śuklam* and *vastram* both refer to a piece of apparel. It is in order, then, that whatever gender and number be associated with terms like *paṭa* or *vastra* and their referents also be associated with *śukla* in such utterances, since this term is here used to refer to the same things. This amounts to saying that *guṇavacana* terms are connected with given genders and numbers according to the genders and numbers associated

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of elements with which these affixes occur. Of course, such deviation is also not obligatory. Thus, Patañjali goes on to cite (Bh. II. 419. 24-25) the examples बहुगुडो द्राक्षा, बहुतैलं प्रसन्ना and बहुपयो यवागूः, with masculine *bahugūḍa* and neuter *bahutaila*, *bahupayas*. These derivatives have the prefix *bahuC* (A 5. 3. 68 : विभाषा सुपो बहुच् पुरस्तात् ।), which alternates with the suffix *kalpaP*. Patañjali also remarks in connection with these that derivatives with *svārthika* affixes also do not deviate from the gender and number of elements to which they are added (Bh. II. 419. 25 : नाप्यतिवर्तन्ते ।). In effect, a derivate like *gūḍakalpa* behaves as an adjective, but *bahugūḍa*, with a prefix, behaves as a noun. Further discussion concerning such examples is not necessary here.

with the things in which the properties in question reside, qualificands denoted by terms like *paṭa*, *vastra*.¹¹⁷ Thus, if affixes such as *ka* or *kalpa* are *svārthika*, only redundantly meaningful, it is proper that the gender and number variations which hold for bases such as *paṭu* should hold also for derivatives like *paṭuka* or *paṭukaipa*, and for the same reason.

Pāṇini does not teach genders associated with terms such as *ghṛta*, *kuṭī*. He does have the rules concerning genders associated with compounds. For example, he provides that the gender of a dvandva or tatpuruṣa compound is determined by that of its last member;¹¹⁸ *mayūrikukkuṭa* 'pea hen and cock' is masculine, but *kukkuṭamayūrī* is feminine, as is *ardhapippalī* 'half of a pepper'. Semantic considerations do not suffice to describe the genders connected with these compounds. According to a semantic classification, known to early Pāṇinīyas, the meanings of both components in a dvandva have equal status; one cannot say, then, that the gender associated with the primary member of such a compound determines the compound's gender. If one allowed the primary meaning of the tatpuruṣa *ardhapippalī* govern the gender of the compound, this again would lead to undesired results, since the primary meaning here is clearly that of *ardha*, which is neuter. Consider also dvandva compounds such as *pāṇipāda* 'hand and foot', *śirogrīva* 'head and neck', consisting of terms for body parts. Although *pāṇi* and *pāda* are masculine *pāṇipāda* is neuter, as is *śirogrīva*, though *grīvā* is feminine; and both compounds are singular, not dual. Pāṇini has to account for these facts and does.¹¹⁹ There are thus formal reasons that require rules relative to genders and numbers associated with

117. गुणवचनानां शब्दानामाश्रयतो लिङ्गवचनानि भवन्ति । (e. g., Bh. I. 228. 20-21).

118. A 2.4.26 : परवलिङ्गं द्वन्द्वतत्पुरुषयोः ।

119. By A 2.4.2 : द्वन्द्वश्च प्राणितूर्यसेनाङ्गानाम् ।, a dvandva compound whose members denote body parts is singular, and A 2.4.17 : स नपुंसकम् । provides that items treated as singular by prior sūtras beginning with A 2.4.1 are neuter.

compounds. There are no such reasons for Pāṇini to teach the genders of terms like *pāda*, *śiras*, *grīvā*. As is clear from his statement that a dvandva or a tatpuruṣa generally has the gender of its last member, however, Pāṇini assumes the knowledge of what genders are connected with such terms, just as he assumes in the sūtra which serves to form *ardhapippali*¹²⁰ the contrast between the neuter *ardha* 'a half' and the variable gender qualifier *ardha*. The gender of such terms need not be taught in the Aṣṭādhyāyī since it is simply a given of usage.¹²¹ Now if the genders of terms like *ghṛta*, *kuṭī* are not taught in the grammar and affixes such as *ka*, *ra* are *svārthika*, the genders associated with *ghṛtaka*, *kuṭīra* also need not be taught in the Aṣṭādhyāyī. These too may be assumed known from usage,¹²² precisely because the derivatives contain *svārthika* affixes. Derivates with such affixes have the same status as the original bases, since the affixes do not have separate meanings of their own.

8. 4. 3. In brief, although the Mahābhāṣya's claims concerning the gender and number of derivatives with taddhita affixes said to be *svārthika* cannot be accepted fully, the affixes in question have indeed to be considered *svārthika*. They do not have meanings proper to them alone. Instead, they are introduced redundantly, in meanings attributed to items with which they occur.

8. 5. The semantics of the derivatives in question support this position. Recall that (102) A 3. 4. 67 (section 7. 1) gives the meaning attributed to *kṛt* affixes in general. A derivate such as *kāraka* or *karṭṛ*, derived from *kṛ* with *ṆvuL* or *ṭṛC* by (100) A 3. 1. 133, can be paraphrased with *karotikriyāśraya* 'locus of the act of doing'. Similarly, *pācaka* denotes someone who cooks and this can be paraphrased with *pākakriyāśraya*.¹²³ The meaning

120. A 2. 2. 2 : अर्धं नपुंसकम् ।

121. लिङ्गमशिष्यं लोकाश्रयत्वाल्लिङ्गस्य । (e. g., Bh. I. 390. 18-19).

122. Thus Kāśikā on (113) A 5. 3. 88 : स्वाधिकत्वेऽपि पुलिङ्गता लोकाश्रयत्वाल्लिङ्गस्य ।

123. Such paraphrases are found, for example, in PLM 173.

'agent' given as the condition for the occurrence of *kṛt* affixes such as *ŃvuL* and *tṛC*, is clearly the qualificand in the complex of related meanings associated with derivatives such as *kāraka*, *karṭṛ*, *pācaka*, which denote agents in respect of particular acts.

In the same vein, let us consider some patronymics derived with *taddhita* suffixes.

(116) A 4. 1. 82 : समर्थानां प्रथमाद्वा ।

is a heading within the large section which (107) 4. 1. 76 (section 8. 2) heads : Unless otherwise provided for, these rules apply optionally to introduce *taddhita* affixes, and if a rule refers to syntactically and semantically related words, a *taddhita* affix is introduced after the first of the words referred to. For example,

(117) A 4. 1. 92 : तस्यापत्यम् ।

consists of two words, *tasya* and *apatyam* : An affix is optionally introduced after a pada [(87) 1. 4. 14, section 7. 1] that is a value of *tasya* — in other words, a pada consisting of a nominal and a genitive ending — to form a derivative meaning 'descendant of *X*'. The sūtras

(118) A 4. 1. 83 : प्राग्दीव्यतोऽण् ।

(119) A 4. 1. 95 : अत इञ् ।

give two affixes used in forming such derivatives. The first is a heading whereby subsequent rules¹²⁴ introduce the suffix *aṆ*, except as otherwise specified. (119) A 4. 1. 95 specifies that, under the conditions stated in (117) A 4. 1. 92, the affix *iṅ* follows a pada which is a value of *tasya*, if the nominal base in this pada ends with *ā*. For example, *aupagava* 'descendant of Upagu' has the suffix *aṆ* (*aupagava* < *upagu-as-a*), but *dākṣi* 'son of Dakṣa' contains *iṅ* (*dākṣi* < *dakṣa-as-i*).¹²⁵ Forms

124. Up to the section headed by A 4.4.2 : तेन दीव्यति खनति जयति जितम् ।

125. The derivative ending in the *taddhita* suffix is a nominal base (*prātipadika*) by (97) A 1.2.46 (section 7.1). A 2.4.71 : सुपो धातुप्रातिपदिकयोः । provides that a nominal ending that is part of a nominal base is replaced by zero.

of these derivatives are equivalent to and alternate with strings of the type given in (117) A 4. 1. 82; e.g., औपगवः = उपगोरपत्यम्, दाक्षिः = दक्षस्यापत्यम्. In addition, it is clear from such paraphrases that the meaning 'offspring, descendant' can be attributed properly to the set of taddhita affixes in derivatives such as *aupa-gava*, *dākṣi* and that this is the chief meaning of these derivatives.

On the other hand, forms of *aśvaka*, with *ka* by (109)–(110) A 5. 3. 73–74, (section 8. 2) alternate with strings which show that the chief meaning of the derivative is that of the base; e.g., अश्वकः = कुत्सितोऽश्वः. Similarly, पटुकल्पः, with *kalpaP* by (111) A 5. 3. 67 (section 8. 3) is paraphrased with ईषदसमाप्तः पटुः, and कुटीरः, with *ra* by (113) A 5. 3. 88 (section 8. 4) is paraphrased with हस्ता कुटी. Again, *ajā* [with *ṬāP* by (106) A 4. 1. 4, section 8. 1] is explained as meaning *strītvaviśiṣṭapaśuviśeṣa* 'a particular animal qualified by femininity.'

That is, the meanings, affixes such as *ṆvuL*, *trC*, *aṆ*, *iṆ* are considered directly to signify, are the principal meanings of the derivatives they form, but the meanings said to be qualifiers of base meanings, hence not signified but cosignified by affixes like *ka*, *kalpaP*, *ra*, *ṬāP*, are indeed qualifiers, subordinate meanings of the derivatives they form.¹²⁶

8. 6. Verbs also take *svārthika* affixes. Consider now the rules

(120) A 3. 1. 22 : घातोरेकाचो ह्लादेः क्रियासमभिहारे यङ् ।

(121) A 3. 4. 2 : क्रियासमभिहारे लोट् लोटो हिस्वौ वा च तध्वमोः ।

According to the first *yaṆ* follows a verb that is monosyllabic and begins with a consonant. The sūtra also gives a meaning condition for this affixation: *kriyāsamabhihāre* 'repetition or

126. Pāṇiniyas from early on (e. g., Bh. II. 58. 11–12) stress that a base and an affix together signify an affix's meaning (प्रकृतिप्रत्ययौ प्रत्ययार्थं सह ब्रूतः ।), so that the latter's meaning is the principal one in a derivative. However, this is only a general rule, as Pāṇiniyas recognize; see, for example, PLM 173.

intense performance of an action.' The same meaning condition is given in (121) A 3. 4. 2, which provides that: The L-affix *IoT* follows a verb that is connected with another verb; instead of parasmaipada and ātmanepada endings which would usually substitute for *IoT*, *hi* and *sva* occur; and *hi*, *sva* optionally replace *ta*, *dhvam* respectively. (120) A 3. 1. 22 serves to form derived verbs like *lolūya* (< *lū-ya*) 'cut repeatedly, intensely.' (121) A 3. 4. 2 applies to derive forms such as *jāgṛhi*, *ihasva*, *lunīhi* in sentences like

(k) स भवान् जागृहि जागृहीत्येवायं जागर्ति ।

'This man is constantly wakeful.'

(l) स भवानीहस्वेहस्वेत्येवायमीहते ।

'This man is constantly exerting himself'.

(m) स भवान्लुनीहि लुनीहीत्येवायं लुनाति ।

'This man keeps on cutting.'

In addition, there are sentences with forms accounted for by both rules. For example,

(n) स भवान्लोलूयस्व लोलूयस्वेत्येवायं लोलूयते ।

'This man keeps on cutting intensely.'

has *lolūyasva* and *lolūyate*. Now, in his fourth vārttika on (120) A 3. 1. 22 Kātyāyana proposes to take care of instances where, it is supposed, this rule and (121) A 3. 4. 2 come into conflict: The latter takes precedence by virtue of being stated later.¹²⁷ Each of these rules has a domain where it alone can apply. The first sūtra applies to introduce *yaN* after a verb that is monosyllabic, begins with a consonant, is used to convey repetition or intense performance of an action, and is not connected with another verb; e. g., *lolūyate*. The second sūtra applies if the verb in question has more than one syllable or does not begin with a consonant, and is used to convey repetition or intense performance of an action in conjunction with

127. A 3. 1. 22 vt. 4 : क्रियासमभिहारे यङो विप्रतिषेधेन लोङ्विधानम् । Bh. II. 29. 23 : क्रियासमभिहारे लोङ् भवति यङो विप्रतिषेधेन ।

another verb; e. g., (k) and (l) have *jāgrhi* and *ihasva*, forms of *jāgr* and *iḥ*. On the other hand, if a verb is monosyllabic or begins with a vowel and is used to convey repetition or intense performance of an action in conjunction with another verb, both the rules could apply. In this case, (121) A 3. 4. 2 takes precedence; for example, (m) has *lunīhi*, not *lolūysva*.¹²⁸ Of course, one may then rightly ask whether a sentence like (n) occurs or not. It does indeed occur.¹²⁹ However, this sentence would not be derived by the procedure noted, since (121) A 3. 4. 2 would take precedence over (120) A 3. 1. 22, thus allowing *lunīhi* but not also *lolūya* subject to the operations stated in (121) A 3. 4. 2. In his fifth vārttika on (120) A 3. 1. 22, then, Kātyāyana remarks that there is no conflict as envisioned earlier, since the affixes in question have different meanings. Thus, an L-affix such as *LOT* is introduced to signify an agent or an object (99) A 3. 4. 69, section 7. 1), but *yaN̄* is introduced redundantly in a meaning proper to a verb with which it occurs, namely a particular kind of action.¹³⁰ That is *yaN̄* is a *svārthika* affix introduced after a verb that is used to signify an action qualified as performed repeatedly or intensely, and (121) A 3. 4. 2 applies with respect to all verbs, including derived ones like *lolūya*, with *yaN̄* by (120) A 3. 1. 22.

Of course, a verb such as *lū* does not by itself denote repeated or intense cutting. For this to be signified one must use also the affix *yaN̄*. Nevertheless, it will not do to say that this affix is a signifier of repetition or intensity in respect of an

128. Bh. II. 29. 23-30. 2 : क्रियासमभिहारे यद् भवतीत्यस्यावकाशः । धातुर्य एकाञ्चलादिः क्रियासमभिहारे वर्ततेऽधातुसंबन्धः । लोड्यते । लोडोऽवकाशः । धातुर्योऽनेका-जह्लादिः क्रियासमभिहारे वर्तते धातुसंबन्धः । स भवाञ् जागृहि जागृहीत्येवायं जागृति । स भवानीहस्वेहस्वेत्येवायमीदृते । धातुर्य एकाञ्चलादिः क्रियासमभिहारे वर्तते धातुसंबन्धश्च तस्मादुभयं प्राप्नोति । स भवाल्लुनीहि लुनीहीत्येवायं लुनाति । लोड् भवति विप्रतिषेधेन ।

129. Bh. II. 30. 3-4 : न तर्हीदानीमिदं भवति स भवाल्लोड्यस्व लोड्यस्वेत्येवायं लोड्यत इति । भवति च ।

130. A 3. 1. 22 vt. 5 : न वा नानार्थत्वात् कर्तृकर्मणोर्हि लविधानं क्रियाविशेषे स्वार्थे यद् ।

action. Recall that (103) A 3. 1. 7 (section 7. 1) introduces *saN* to form desiderative verbs. The action noun *cikīrṣā* 'wishing to do' can be paraphrased with *karaṇaviṣayecchā* 'wishing that has doing as its object.' Clearly the meaning 'wishing' is here the qualificand, and one can rightly say that *saN* signifies wishing in respect of acts denoted by verbs to which this suffix is added. There is also an action noun *lolūyā* 'repeated or intense cutting', and this can be paraphrased by *samabhihāra-viśiṣṭalavana* 'cutting qualified as performed repeatedly or intensely', showing that cutting is the chief meaning of the derivative with *yaN*. As in some of the instances considered in sections 8. 4-8. 5, here also semantic considerations support the position that *yaN* is a cosigner of a meaning which qualifies an action, a meaning properly attributed to a verb that is used with the affix *yaN*.

9. In sections 8. 4-8. 6 I argued that semantic considerations speak in favor of treating certain affixes as signifiers and other affixes as cosignifiers of meanings. It is clear from the heading (116) A 4. 1. 82 and rules such as (117) A 4. 1. 91 (section 8. 5) that Pāṇini is aware of the equivalence between certain strings and derivatives which alternate with such strings. Pāṇini is also aware of the relation between qualifiers and qualificands; indeed, he uses the terms *viśeṣaṇa* and *viśeṣya*.¹³¹ It is therefore proper to consider that Pāṇini could recognize the difference in relation between the meanings of components in derivatives such as *kāraka* and the meanings associated of derivatives like *aśvaka*. In this connection, let us consider two rules that apply in deriving feminine action nouns:

(122) A 3. 3. 94: स्त्रियां क्तिन् ।

(123) A 3. 3. 102: अ प्रत्ययात् ।

The first of these is a general rule whereby *KtiN* follows a verb on condition that an abstract action qualified by femininity is to

131. As in A 2. 1. 57: विशेषणं विशेष्येण बहुलम् ।

be designated; e. g., *kṛti* 'doing'.¹³² (123) A 3. 3. 102 is an exception to this general rule: Under the conditions stated, if the verb in question ends with an affix, it is followed by *a*. (123) A 3. 3. 102 serves to derive action nouns such as *cikīrṣā* and *lolūyā*. This sūtra alone, however, does not account for the derivatives. The element *a* which (123) A 3. 3. 102 introduces is a member of the ārdhadhātuka class,¹³³ and *-a* of a verb is deleted before such an affix,¹³⁴ so that one gets *cikīrṣa* and *lolūya* by introducing *a* after the derived verbs *cikīrṣa* and *lolūya*. These differ from the bases to which the suffix *a* is added in that they are prātipadika [by (97) A 1. 2. 46, section 7. 1] by virtue of ending in the kṛt affix [(110) 3. 1. 93] *a*. Consequently, the feminine suffix *ṬāP* [by (106) A 4. 1. 4, section 8. 1] is introduced after *cikīrṣa* and *lolūya*: *cikīrṣa-ā* (→ *cikīrṣā*), *lolūya-ā* (→ *lolūyā*). Now, in (122) A 3. 3. 94 Pāṇini states *striyām*, which is understood to recur in (123) A 3. 3. 102. Whatever else one might say then, Pāṇini thus recognizes that femininity is a meaning included in the total meanings of derived nominals like *cikīrṣa* (< *cikīrṣa-a*) and *lolūya* (< *lolūya-a*), after which *ṬāP* is introduced by (106) A 4. 1. 4 under the meaning condition given in the heading (105) A 4. 1. 3. It follows that *ṬāP* is introduced after such nominal bases under a redundant meaning condition: *striyām* of (105) A 4. 1. 3 alludes to a meaning already included in the total meanings of the bases *cikīrṣa*, *lolūya*. Since Pāṇini formulated all the rules in question, moreover, he cannot have remained unaware of this, although he does not have to refer explicitly to certain affixes as *dyotaka* and meanings as *dyotya*. Pāṇinīyas later not only observe the distinction between signifiers and co-signifiers but also use these terms.¹³⁵

132. In accordance with (158) – (159) A 3. 3. 18–19 (section 11. 6. 5), a derivative such as *kṛti* denotes an abstract act (*bhāva*) or a *kāraka* other than an agent.

133. A 3. 4. 114 : आर्धधातुकं शेषः ।

134. A 6. 4. 48 : अतो लोपः ।

135. The terminology is known to Kātyāyana (A 3. 1. 125 vt, 1 : आवश्यक उपपद इति चेद् द्योत्य उपसंख्यानम् ।).

There is additional evidence in support of the conclusion that Pāṇini distinguished between signifiers and cosignifiers. As I have noted (section 7. 3), Pāṇini derives the accusative *payah* of (h) from a pada *payas-am*, with the second-triplet ending *am*, which is deleted after a neuter base. There is a parallel between pairs such as *bhiṣajam* : *payah* on the one hand and *ajā* : *vāc* on the other. Certain nominal bases must be followed by overt endings such as *am* if they are used with reference to objects of actions, but there are nominals that do not occur with such overt endings. In the case of some nominals, the 'feminine' is associated with certain affixes, but not all nominals take such feminine affixes. On the other hand, aside from their gender difference, there is an important distinction between the types *payas* and *vāc*. (h) contains *payah*, with *-h*, not *payas*, and *-h* regularly occurs in word-final position. There is a good reason, then, for introducing *am* after *payas* to derive (h) : Even after the ending *am* has been deleted, its trace remains in that the item *payas* is now treated as a pada [(87) 1. 4. 14, section 7. 1], so that its *-s* undergoes an operation which leads to *-h*.¹³⁶ There is no comparable reason for introducing a feminine affix after a base like *vāc* and then deleting this affix. In fact, Pāṇini does not introduce a feminine affix here. Thus, in Pāṇini's system *am* is one of a group of affixes that signify certain meanings and which, though they may be deleted, are indeed first allowed to occur with nominals, but *TāP* is one of a set of affixes that only cosignify a meaning and which are not necessarily introduced.

Of course, none of this requires that cosignifiers be absolutely meaningless. It is true, for example, that 'feminine' is a notion not always connected with affixes, but certain items, such as *ajā*, require feminine affixes if this is to be conveyed. In the case of such bases, then, one can even reason from anvaya and vyatireka

136. A 1.1.62 : प्रत्ययलोपे प्रत्ययलक्षणम् । ; *-s* → *-r* (A 8.2.66 : ससजुषो रुः ।) → *-h* (A 8.3.15 : खरवसानयोर्विसर्जनीयः ।). The replacement by *-r* applies to *-s* of any pada ((165) A 8.1.16); *-r* is replaced by *h* before voiceless consonants and pause.

(section 7. 2) within a restricted domain to show that femininity is associated with certain affixes. Consequently, Pāṇiniyas do consider *svārthika* affixes such as these to be meaningful.¹³⁷

10. There are other affixes, also called *svārthika*, which differ from *svārthika* affixes considered earlier in that they cannot be considered even to cosignify any meaning.¹³⁸

10. 1. In the section headed by (107) A 4. 1. 76 (section 8. 2),

(124) A 5. 4. 28 : अवेः कः ।

(125) A 5. 4. 29 : यावादिभ्यः कन् ।

introduce the taddhita affixes *ka* and *kaN*, respectively, after *avi* 'sheep' and items in the group that begins with *yāva* 'made of barley'. Neither rule gives a meaning as a condition for the use of the affix. In addition, derivatives such as *avika* and *yāvaka* are synonymous with the bases to which they are added. Hence, there is no question of any particular meaning even cosignified by *ka* and *kaN* of these rules. Indeed, these are among the affixes of which Patañjali remarks that they convey no meaning whatever (see section 11. 1. 7 with note 193).

10. 2. The heading

(126) A 5. 4. 68 : समासान्ताः ।

governs a subsection of rules which introduce taddhita affixes after final members of compounds and make these suffixes the final elements of such compounds. For example,

(127) A 5. 4. 91 : राजाहस्सखिभ्यष्ट् ।

introduces *ṬaC* after compounds with *-rājan*, *-ahan* *-sakhi*. The segments *-an*, *-i* are deleted before this taddhita affix,¹³⁹ so that (127) A 5. 4. 91 serves to derive compounds with *-rāja*, *-aha*,

137. See, for example, VSM 52, LM 593.

138. As I pointed out in section 7. 1, Pāṇiniyas call these *atyanta-svārthika*.

139. A 6. 4. 144, 148 : नस्तद्धिते ।, यस्येति च ।

-*sakha*. Moreover, a form such as परमराजः alternates with and is synonymous with a string परमो राजा 'highest king', so that there is no meaning additional to that of *parama* or *rājan* which could be attributed to the suffix *TaC*. This neither signifies nor cosignifies any particular meaning, and the same is true of other *samāsānta* affixes.

10. 3. The rules

(128) A 5. 3. 7 : पञ्चम्यास्तसिल् ।

(129) A 5. 3. 10 : सप्तम्यास्त्रल् ।

introduce taddhita affixes optionally [(116) A 4. 1. 82, section 8. 5] to padas formed from certain pronominal bases and *bahu*:¹⁴⁰ *tasIL* and *traL*, respectively, follow padas with fifth-triplet (ablative) and seventh-triplet (locative) endings. For example, the abstract string तद्-अस् आद्यतर-स् contains *tad* 'that' with the fifth-triplet ending *NasI*.¹⁴¹ From this string one can directly derive तस्मादाद्यतरः 'He is richer than that one'. Alternatively, by (128) A 5. 3. 7, *tasIL* can be introduced after *tad-as* to give *tad-as-tas*. This is a derived nominal base (*prātipadika*: (97) A 1. 2. 46, section 7. 1), so that *NasI* is deleted:¹⁴² *tad-as-tas* → *tad-tas* → *tatas*.¹⁴³ The ending *sU* (nom. sg.) is introduced after the base *tatas*,¹⁴⁴ then deleted, since this nominal belongs to the *avyaya* class.¹⁴⁵ Pāṇini thus accounts for

(o) तत् आद्यतरः

as a string equivalent to

(p) तस्मादाद्यतरः

140. A 5. 3. 2 : किं सर्वनाम बहुभ्योऽद्वयादिभ्यः ।

141. A 2. 3. 42 : पञ्चमी विभक्ते ।

142. By A 2. 4. 71 (note 125); cf. the derivation of *dāksi* from *dākṣa-as-i* (section 8. 5), with the deletion of *Nas*.

143. A 5. 3. 1 : प्राग्दिशो विभक्तिः । *tasIL* belongs to the class of affixes called *vibhakti*, so that the *-d* of *tad* is replaced by *a* before this item (A 7. 2. 102) त्यदादीनामः ।) : *tad-tas* → *taa-tas* → *ta-tas* (A 6. 1. 97 : अतो गुणे ।).

144. A 2. 3. 46 : प्रातिपदिकार्थलिङ्गपरिमाणवचनमात्रे प्रथमा ।

145. A 1. 1. 38 : तद्धितश्चासर्वविभक्तिः ।, (146) A 2. 4. 82 (section 11. 4. 1),

Similarly, he derives तत्र नगरे and तस्मिन्नगरे 'in that city' as equivalent strings. By (129) A 5. 3. 10, *traL* optionally follows *tad-i* of the abstract string तद्-इ नगर-इ: *tad-i-tra* → *tad-tra* → *tatra*.

The padas *tad-i* and *nagara-i* contain the seventh-triplet ending *Ni*, introduced on condition that a locus is to be signified (see note 80). In addition, as shown, *tad-i-tra* is synonymous with *tad-i*. Consequently, one cannot say that *traL* in *tad-i-tra* signifies any meaning distinct from that of the item *tad-i* to which it is introduced. And indeed Pāṇini does not give any meaning condition in (129) A 5. 3. 10. Moreover, it will not do to claim that *traL* is a necessary cosigner of a meaning. To be sure, *tatra* contains *tra* and no other overt element signifying a locus. However, *tatra* is derived from *tad-i-tra*, with the locus signifier *Ni*, and *tad-i* does not require *traL* for this meaning to be signified. Nor should one claim that reasoning from anvaya and vyatireka (section 7. 2) applies only in respect of forms found in actual usage, such as *tasmin* and *tatra*, not also in respect of forms posited in order to account for such usage by means of a derivational system. After all, this procedure is applied within a grammatical system and, as I have pointed out (sections 7. 3, 9), it is necessary within this system first to introduce elements and then to delete them. It is proper to conclude, therefore, that *traL*, for which Pāṇini does not specify any meaning whatever, neither signifies nor cosignifies any meaning. The same is to be said of *tasIL*. As shown, the referent of *tad* in (o), (p) is a person relative to whom another, referred to by *ādhyatara*, is more wealthy. In general, if a nominal is used with reference to something else and not directly participating in an action, a sixth-triplet (genitive) ending follows that nominal base.¹⁴⁶ Under particular conditions, however, other endings occur, as in (p): If *A* refers to something with which the referent of *B* is contrasted with respect to a given property, then *A* takes a fifth-triplet ending (see note 141). Thus, *tad-as*, from which *tasmāt* is derived, contains the ending *NasI* used to convey that

146. A 2. 3. 50 : षष्ठी शेषे ।

referent of *tad* is related in this way to the person referred to by *ādhyātara*, and *tad-as-tas* is synonymous with *tad-as*.

10. 4 : A derivate like *grāmatas*, as in

(q) ततो ग्रामत आगच्छति । 'He is coming from that village' also contains an affix *tas*, and this too is introduced optionally after a pada with a fifth-triplet ending. According to

(130) A 5. 4. 45 : अपादाने चाहीयरुहोः ।

the taddhita affix *tasI* optionally follows such a pada if the ending in question has been introduced to signify an *apādāna*,¹⁴⁷ provided the action relative to which one has an *apādāna* is not one denoted by *hiya*, *ruh*. A point of departure such as a village from which someone comes is assigned to the *apādāna* class,¹⁴⁸ and a fifth-triplet ending is introduced after a nominal on condition that an *apādāna* is to be signified (see note 147). For example, the ending *NasI* of *grāma-as* signifies an unspecified *apādāna*; the base *grāma* serves to specify that the *apādāna* in question is a village. After such a pada, *tasI* may occur optionally, by (130) A 5. 4. 45 : *grāma-as-tas* → *grāma-tas*. The derivate *grāmatas* is equivalent to *grāmāt* (< *grāma-as*), which could be used in (q) without any differences in meaning.

According to

(131) A 3. 1. 3 : आद्युदात्तश्च ।

an affix [*pratyaya* : (92) A 3. 1. 1, section 7. 1) not only usually follows another item [(93) A 3. 1. 2] but generally has high pitch on its first vowel; e.g., *grāmatās*. But *tātas* does not conform to this general pattern. Hence, in

(132) A 5. 3. 8 : तसेश्च ।

Pāṇini provides that *tasI* is replaced by *tasIL* if it follows a pada formed from *bahu* or the pronominals specified in A 5. 3. 2

147. A 2. 3. 28 : अपादाने पञ्चमी ।

148. A 1. 4. 24 : ध्रुवमपायेऽपादानम् ।

(see note 140). The suffix *tasIL* is marked with *l* to show that a vowel preceding it in a derivate has high pitch.¹⁴⁹

(130) A 5. 4. 45 mentions a meaning. Nevertheless, *tasI* introduced by this sūtra no more signifies a meaning than do *tasIL* and *traL* by (128) A 5. 3. 7, (129) A 5. 3. 10 (section 10. 3). The locative *apādāne* refers to the meaning in which a fifth-triplet ending is used : *tasI* follows a pada with a fifth-triplet ending introduced to signify an *apādāna*. Moreover, although (130) A 5. 4. 45 indeed has the locative *apādāne*, it is not proper to conclude from this that the sūtra is like rules that include locative forms referring to meanings cosignified by affixes these rules introduce (sections 8. 1-3. 6). Aṣṭādhyāyī 2. 3. 28 (note 147) is comparable to (98) A 2. 3. 2 (section 7. 1) : As the latter provides that second-triplet nominal endings occur if an object of an action is to be signified, the former provides that fifth-triplet endings occur if an *apādāna* is to be signified. The meanings these endings signify in padas such as *bhiṣaj-am*, *grāma-as* are the principal meanings of these items : *bhiṣaj-am* refers to an object of an action, *grāma-as* to an *apādāna*. The meanings of the bases *bhiṣaj*, *grāma* qualify these affix meanings specifying that the object in question is a doctor and that the *apādāna* in question is a village. Thus, the meaning mentioned in (130) A 5. 4. 45 is the chief meaning of a pada, such as *grāma-as*, to which *tasI* is introduced, not a qualifying meaning to be cosignified by an affix. In addition, *tasI* is certainly not necessary as a cosignifier of a meaning proper to an item like *grāma-as*, since the meaning in question is indeed conveyed by *grāma-as* without *tasI* : *grāmāt* (< *grāma-as*) is used to refer to an *apādāna*. Finally, *tasIL* as a replacement for *tasI* by (131) A 5. 3. 8 also does not signify or cosignify a meaning.

10. 5. Pāṇini derives causative verbs such as *pāci* (< *pac-i*) ' have ... cook ' by affixing *NiC* to primitive verbs.¹⁵⁰ There are

149. A 6. 1. 193 : लिति । Another reason for replacing *tasI* with *tasIL* need not be considered here.

150. A 3. 1. 26 : हेतुमति च ।

also derived verbs of the type *cori* (< *cur-i*) 'steal', which are not causatives, and some such derivatives alternate with simple primitive verbs.¹⁵¹ The type *cori* is accounted for by affixing *NiC* to primitive verbs of the class which begins with *cur*, according to

(133) A 3. 1. 25 : सत्यापपाशरूपवीणातुल्यश्लोकसेनालोमत्वच-
वर्मवर्णचूर्णचुरादिभ्यो णिच् ।

Now, since a verb such as *cur* requires the suffix *NiC*, this can properly be said to cosignify the meaning of the base with which it is used. On the other hand, in the case of pairs such as *mṛj* (*mārṣṭi*) and *marji* (*marjayati*), where *NiC* is not obligatory (see note 151), the affix cannot even be said to cosignify a meaning : It is absolutely redundant.

10. 6. The Mahābhāṣya discusses (128) A 5. 3. 7 and (129) A 5. 3. 10 (section 10. 3) together, and takes up two points. First it is shown that *pañcamyāḥ* and *saptamyāḥ* are to be understood as ablative forms construed with *paraḥ* [(93) A 3. 1. 2, section 7. 1], so that the taddhita affixes in question follow items with fifth-triplet and seventh-triplet nominal endings. Accordingly, (132) A 5. 3. 8 (section 10. 4) is understood to provide that *tasIL* replaces *tasI* following a pada with a fifth-triplet ending. In this connection an objection is raised which, though easily refuted, is worth mentioning because of the particular way it is answered. For the sake of argument, let us assume that *taseḥ* in (132) A 5. 3. 8 could refer not only to the taddhita affix *tasI* but also to a homophonous term, the verb *tas* (*tasyati*) 'grow less'.¹⁵² This opens the way to an objection :

151. E. g., *mārṣṭi*, *marjayati* 'wipes clean, curries'; see *Studies in the Linguistic Sciences* 8. 2. 7. 8 (1978). I must apologize for having accidentally miswritten *sampradāna* instead of *apādāna* (p. 8, lines 17, 21).

152. Kaiyaṭa (Pr. IV, 181) remarks that this is possible if the final vowel of *tasI* is considered to have been used merely to facilitate pronunciation : ... तसेरिति निर्देशे चेकार उच्चारणार्थः । In addition, *taseḥ* could be interpreted as

(132) A 5. 3. 8 as interpreted could now allow *tasIL* wrongly to replace the verb *tas* after terms like *tad-as* (→ *tasmāt*), *yad-as* (→ *yasmāt*), so that a negation has to be stated precluding the replacement by *tasIL* of terms homophonous with the suffix *tasI*.¹⁵³ Kātyāyana remarks, however, that there is no reason for such a negation, because it is recognized that the sūtra as formulated applies with respect to redundant *tas*, since no meaning is specified.¹⁵⁴ Patañjali explains: *tasIL* is to replace only the affix *tasI*, marked with *i*, which alone occurs redundantly (*svārthe*) after a pada with a fifth-triplet ending; the verb *tas* is not thus used redundantly.¹⁵⁵ Kātyāyana and Patañjali here patently accept that, as opposed to a term like the verb *tas*, the affix *tasI* has no meaning proper to it.¹⁵⁶

11. No meanings whatever are specified in (124)–(125) A 5. 4. 28–29, (127) A 5. 4. 91, or (128)–(129) A 5. 3. 7, 10 (sections 10. 1. 10. 3), so that the affixes these rules introduce are aptly termed *anirdiṣṭārtha* (see section 7. 4). Moreover, as I have shown, these items cannot be said even to cosignify meanings. Yet Pāṇinīyas use *svārtha* in connection not only

(Continued from the last page)

possibly referring to a verb because Pāṇini uses terms of the type *gamī* in designating verbs and the distinctive nasalization used in the Aṣṭādhyāyī to identify markers (A 1. 3. 2 : उपदेशेऽजनुनासिक इत् ।) was lost early in the Pāṇinīya tradition.

153. II. 404. 19–20 : यदि परे समानशब्दानां प्रतिषेधो वक्तव्यः । तस्मात्तस्यति । यस्मात्तस्यति । पञ्चम्यन्तात्परस्य तसेस्तसिर्भवतीति तसिल् प्राप्नोति ।

154. A 5. 3. 7, 10 vt. 3 : अनादेशे स्वार्थविज्ञानात्समानशब्दाप्रतिषेधः ।

155. Bh. II. 404. 22–24 : अनादेशे स्वार्थविज्ञानात्समानशब्दानामप्रतिषेधः ... तसिल् कस्मान्न भवति । स्वार्थविज्ञानात् । पञ्चम्यन्तात्परस्य तसेः स्वार्थे वर्तमानस्य तसिला भवितव्यं न चात्र पञ्चम्यन्तात्परस्तसिः स्वार्थे वर्तते ।

156. As Kaiyaṭa (Pr. IV. 181–182) and Nāgeśa (Ud. IV. 182) note, by *svārtha* Kātyāyana and Patañjali mean here the meaning of the given item, terminating in a fifth triplet nominal ending, to which *tasI* is added : Pr. : स्वार्थे वर्तमानस्येति । पञ्चम्यन्तप्रकृत्यर्थ इत्यर्थः । Ud. : ननु तसुधातुरपि स्वस्यैवार्थे वर्ततेऽत आह पञ्चम्यन्तेति । पञ्चम्यन्तायाः प्रकृतेरर्थ इत्यर्थः ।

with cosignifying affixes¹⁵⁷ but also with absolutely redundant affixes,¹⁵⁸ as though these two were somehow linked to meanings. The question therefore arises whether there are good reasons for insisting that all affixes be connected with meanings.

11. 1. It is certainly not the case that reasoning from anvaya and vyatireka, on the basis of which one can posit separate bases and affixes with meanings (see section 7. 2), requires that every affix be associated with a meaning which it either signifies or cosignifies. Let us consider again briefly (c)-(f) and *avi*, *avika* (sections 7. 2, 10. 1). It is possible to argue that *bhiṣajam* and *ṛtvijam* contain an affix *am* which signifies an object of an action. This meaning is understood if *am* or another of a set of affixes that can be isolated occurs and it is not understood if *am* or another of the affixes in question is not present, as in *bhiṣajā*, *ṛtvijā*. To maintain this analysis, moreover, one may posit complexes such as *payas-am* and delete *am* at a stage of derivation (see section 7. 3), a procedure justified by the behavior of *payas* (see section 9). Similarly, related sets of items such as *aviḥ*, *avibhiḥ* and *giriḥ*, *giribhiḥ* justify isolating bases *avi* 'sheep' and *giri* 'mountain', each of which can be followed by affixes with specifiable meanings. Now, *avika* has a segment *avi* identical with the base of *aviḥ*, *avibhiḥ*, so that one can abstract this base also from *avika*. Moreover, there is an affix *ka* that is connected with several meanings (see section 8. 2). However, one cannot say that *ka* in *avika* is the affix associated with these meanings, since *avika* means exactly what *avi* does. Thus, reasoning from anvaya and vyatireka allows one to analyze *avika* into a base *avi* and an affix *ka* and also to say that *avi* has a meaning of its own. But no such reasoning allows one to conclude that *ka* in *avika* has any meaning of its own.

157. See the passages cited in notes 91, 101, 102, 103, 105, 109, 110, 112, 114, 116, 130.

158. See notes 154-156, 266, 267. The suffix *NiC* used with bases of the group beginning with *cur* ((133) A 3. 1. 25) is acknowledged to occur *svārthe*; e. g., Kāṣ. 3. 1. 25 : चुरादिभ्यः स्वार्थे ।

In fact, the claim that such *atyantasyārthika* affixes are connected with meanings is based purely on an assumption: all affixes must be meaningful. Pāṇinīyas as much as admit this. To see the reasons for which they entertain this assumption, we must consider a series of arguments from the Mahābhāṣya on (92) A 3. 1. 1 (section 7. 1), concerning the following affixation rules :

(134) A 3. 1. 5 : गुप्तिजिद्भ्यः सन् ।

(135) A 3. 2. 13 : स्तम्बकर्णयो रमिजपोः ।

(136) A 3. 2. 25 : हरतेर्दतिनाथयोः पशौ ।

(137) A 3. 1. 108 : हनस्त च ।

(138) A 4. 3. 134 : तस्य विकारः ।

(139) A 4. 3. 138 : त्रपुजतुनोः पुक् ।

Now, an element to which an affix is added is called *prakṛti* (‘original, base’) by Pāṇinīyas, since it is an original given entity distinct from a newly introduced item such as an affix. For example, (134) A 3. 1. 5 refers to three *prakṛti* elements, the verbs *gup*, *tij*, *kit*: The affix *saN* follows these to form the derivatives *jugupsa* ‘abhor’, *titikṣa* ‘tolerate’, *cikitsa* ‘care for an illness’. Some affixation rules not only give particular *prakṛti* and affixes but also provide that the affixes are introduced if the *prakṛti* elements are construed with certain cooccurring items (*upapada*).¹⁵⁹ For example, (135) A 3. 2. 13 provides that the affix *aC* follows the verbs *ram* ‘play’ and *jap* ‘mutter, whisper’ construed respectively with forms of the nominals *stamba* ‘clump of grass’ and *karṇa* ‘ear’: *stamberama* ‘(an animal that plays in a clump of grass), an elephant’, *karṇejapa* ‘one who whispers talk about others in people’s ears, a snitcher’. Other affixation rules not only give a *prakṛti*, an *upapada*, and an affix but also state a qualification of a general meaning. For example, (136)

159. Such items are referred to by locative forms in rules of the section headed by (90) A 3. 1. 91 (section 7. 1), in accordance with A 3. 1. 92 : तत्रोपपदं सप्तमीस्थम् ।

A 3. 2. 25 provides that *iN* follows *hr* 'take, carry' if this verb is construed with *dṛti* 'water bag' or *nātha* 'master, rope passed through the nose of a draft animal' used with reference to objects of carrying. Since *iN* is a *kṛt* affix by (101) A 3. 1. 93 (section 7. 1), it has the general meaning 'agent', by (102) A 3. 4. 67, but *paśau* 'animal' is used in (136) A 3. 2. 25 to qualify this meaning: the affixation applies if the agent in question is an animal. The sūtra serves to derive *dṛtihari* 'animal that carries a water bag, dog', *nāthahari* 'animal that bears a nose rope'. There are also rules which state concurrent operations. Thus, by (137) A 3. 1. 108, *KyaP* follows *han* 'kill' to form a derivate signifying an action in the abstract, provided this verb is construed with a nominal and is not used with a preverb. In addition, when the affix *KyaP* is added, *t* replaces the *-n* of *han*; e. g., *brahmahatyā* 'killing of a Brāhmaṇa'. (138) A 4. 3. 134 provides that, except as otherwise specified, the *taddhita* affix *aN* [see (118) A 4. 1. 83, section 8. 5] optionally follows a *pada* that is a value of *tasya* — that is, a term *X-gen.*, with a genitive ending — to form a derivate meaning 'modification of *X*'. (139) A 4. 3. 138 states an additional operation that applies if *X* of *X-gen.* which *aN* follows is *trapu* 'tin' or *jatu* 'lac': The final augment *ṣUK* is added to the base,¹⁶⁰ as in *trāpuṣa* 'made of lead', *jātuṣa* 'made of lac'.

11. 1. 1. The first issue taken up is the possibility that *prakṛti*, *upapada*, and terms that state qualifications might wrongly be classed as affixes.

(A) A problem is brought up: The class name *pratyaya* is introduced by a heading, (92) A 3. 1. 1 (section 7. 1), so that *pratyayaḥ* stated in this sūtra is to be understood to recur in subsequent rules. This makes it possible for the name to apply not only to items such as *saN*, *aC*, and *iN* but also to *prakṛti*, *upapada*, and terms used for giving qualifications. Thus, *gup*, *tij*, *kit* of (134) A 3. 1. 5, forms of *stamba* and *karṇa*, referred to

¹⁶⁰. Initial and final augments, respectively, are marked with *ṣ* and *ḥ*:
A 1. 1. 46 : आद्यन्तौ ट्कितौ ।

in (135) A 3. 2. 13, and *paśu* of (136) A 3. 2. 25 could be assigned to the *pratyaya* class. It would wrongly follow that these elements would have to occur after others, by (93) A 3. 1. 2, that they would have high-pitched first vowels by (131) A 3. 1. 3 (section 10. 4), and that the class name *aṅga* could apply to elements after which they occurred.¹⁶¹ It is therefore necessary to state a negation denying such items the class name *pratyaya*.¹⁶²

(B) It is shown that the problem envisioned under (A) does not arise; Denying the class name *pratyaya* to the items in question is purposeless, since this will not apply to them in any case, by virtue of either of two reasons :

(B₁) Elements that serve as conditions for operations are intended to serve this purpose with respect to operations on conditioned elements, not on themselves, as is true not only in grammar but elsewhere also.

(B₂) An operation is understood to apply for the main entities one refers to, not to subsidiary elements associated with these.¹⁶³

(134) A 3. 1. 5 refers to three verbs that serve as given conditioning elements for the introduction of *saN*, which is a conditioned element. Similarly, forms of *stamba*, *karna* and the verbs *ram*, *jap* referred to in (135) A 3. 2. 13 are given items that serve to condition the introduction of the affix *aC*. Again, *paśau* in (136) A 3. 2. 25 is used as a qualification of an agent, a given condition for the use of *iN*. Put differently, a known entity is referred to as a conditioning element for introducing

161. A 1. 4. 16 : यस्मात्प्रत्ययविधिस्तदादि प्रत्ययेऽङ्गम् । It is not necessary to discuss here the consequences of this classification.

162. Bh. II. 1. 2-6 : अधिकारेण्यं प्रत्ययसंज्ञा क्रियते । सा प्रकृत्युपपदोपाधीनामपि प्राप्नोति । तस्याः प्रतिषेधो वक्तव्यः । प्रकृति गुसिज्जिदभ्यः सन् । उपपद स्तम्भकर्णयो रमिजपोः । उपाधि ह्रस्वेर्द्वित्तिनाथयोः पशौ । एतेषां प्रतिषेधो वक्तव्यः । किं च स्याद्यद्येतेषामपि प्रत्ययसंज्ञा स्यात् । परत्वमाधुदात्तत्वमङ्गसंज्ञेत्येते विधयः प्रसज्येरन् ।

163. A 3. 1. 1 vts. 1-3 : प्रत्ययाधिकारे प्रकृत्युपपदोपाधीनामप्रतिषेधः । निमित्तस्य निमित्तकार्यार्थत्वादभ्यन्त्रापि । प्रधाने कार्यसंप्रत्ययाद्वा सिद्धम् ।

an unknown conditioned item. Bases like *gup* are known as taught in the dhātupāṭha; nominals like *stamba*, whether referred to as cooccurring items or used to give qualifications, are also known elements; but items such as *saN*, *aC*, *iN* are not known units: they are introduced as new elements.¹⁶⁴

It is thus the case that operations apply to certain entities under given conditions, and that these operations do not apply to the conditioning items, so that the assignment of the class name *pratyaya* by (92) A 3.1.1 applies to the newly introduced conditioned items *saN*, *aC*, *iN*, and so on, not to the given elements which condition their occurrence. This principle holds not just in grammar but elsewhere too, in the real world. For example, if there are several people seated somewhere and a person *A*, who does not know them, asks *B* which person in the group is Devadatta and which one of a given pair is Yajñadatta, *B* can tell him that one is the man sitting on a horse and the other one is the man seated on a seat. The horse and seat are given conditioning entities that serve to allow *A*'s concluding that one man is Devadatta, another is Yajñadatta. Neither the horse nor the seat thereby gets a name like *devadatta*.¹⁶⁵

In addition, there is also a norm concerning main and subordinate entities: An operation is understood to hold for the former alone. For example, suppose there is a group of people going somewhere, a person *A* sees them but does not know them, and he asks *B* who is going. *A* uses the singular *yāti*,

164. This is also shown by the syntax: nominatives denoting new elements, other case forms referring to condition; see section 11.1.4 with note 184.

165. Bb. II. 1.11-18: निमित्तानि हि निमित्तकार्याणि भवन्ति । किं पुनर्निमित्तं को वा निमित्ति । प्रकृत्युपपदोपाधयो निमित्तं प्रत्ययो निमित्ति । अन्यत्रापि चैव न्यायो वृष्टः । क्वान्यत्र । लोके । तद्यथा बहुष्वासीनेषु कश्चित्कंचित्पृच्छति कतमो देवदत्तः कतरो यज्ञदत्त इति । स तस्मा आचष्टे । योऽथे यः पीठ इत्युक्ते निमित्तस्य निमित्तकार्याथैवादध्यवस्यन्त्यं देवदत्तोऽयं यज्ञदत्त इति नेदानीमथस्य पीठस्य वा देवदत्त इति संज्ञा भवति । किं पुनर्निमित्तं को वा निमित्ति । निज्ञातोऽर्थो निमित्तमनिज्ञातोऽर्थो निमित्ति । इह च प्रत्ययोऽनिज्ञातः प्रकृत्युपपदोपाधयो निज्ञाताः । क्व । धातूपदेशे प्रातिपदिकोपदेशे च । ते निज्ञाता निमित्तत्वेनोपादीयन्ते ।

so that *B* knows the question concerns one person. He answers that the king is going. *B* gives this answer because he understands that an operation or anything done applies in the first instance to a chief entity. *A* understands from *B*'s answer that the king is the chief person in the group. The principle holds in grammar also, so that the class name *pratyaya* is assigned to main units like *saN*, *aC*, *iN*. Of course, there is a difference between how this norm applies in the everyday world and how it applies in grammar. Something's being a chief entity relative to others in the world is a function of how it behaves. For example, a king commands others. On the other hand, that a speech unit is a principal entity in respect of others is a function of its being taught for the first time, as something not previously introduced: *prakṛti*, *upapada*, and items that give qualifications are known as taught in places other than rules which introduce affixes, but an affix is taught in an affixation rule as a new element.¹⁶⁶

11. 1. 2. The possibility is next considered that (92) A 3. 1. 1 could assign the name *pratyaya* to replacements and augments.

(C) Objection: Neither (*B*₁) nor (*B*₂) can keep the class name *pratyaya* from applying to replacements (*vikāra* 'modification') and augments such as the *t* which replaces *-n* of *han* by (137) A 3. 1. 108 and the *ṣ* that is added to *trapu* and *jatu* according to (139) A 4. 3. 138. These are indeed taught as new and conditioned entities.¹⁶⁷

166. Bb. II. 2. 2-7 : अथवा प्रधाने कार्यसंप्रत्ययो भवति । किं च प्रधानम् । प्रत्ययः । तथा बहुषु यास्तु कश्चित्कचित्पृच्छति को यातीति । स आह राजेति । राजेत्युक्ते प्रधाने कार्यसंप्रत्ययाद्यः पृच्छति यश्चाचष्ट उभयोः संप्रत्ययो भवति । किंकृतं पुनः प्रधान्यम् । शब्दस्यापूर्वोपदेशः प्रधान्यम् । यस्यापूर्वोपदेशः स प्रधानम् । प्रकृत्युपपदोपाधयश्चोपदिष्टाः । क्व । धातूपदेशे प्रातिपदिकोपदेशे च ।

167. Bb. II. 2. 8-11 : यद्येव निमित्तस्य निमित्तकार्यार्थत्वादथापि प्रधाने कार्यसंप्रत्ययात् प्रकृत्युपपदोपाधीनां न भवति विकारागमानां तु प्राप्नोति । हनस्त च । त्रपुजतुनोः पुगिति । एतेषां ह्यपूर्वोपदेशात्प्राधान्यं निमित्तिनश्चेति ।

(D) Answer: The class name *pratyaya* will not apply to replacements and augments because it is recognized, in accordance with (93) A 3. 1. 2 (section 7. 1), that, except as otherwise provided for, an element called *pratyaya* follows an item to which it is introduced, and replacements and augments cannot follow elements they replace and to which they are added. Although affixes, replacements, and augments are indeed taught as new elements in the grammar, only affixes regularly follow elements they are introduced to, and this is acknowledged in the very syntax of rules: substituends connected with replacements and items relative to which augments are introduced are denoted by genitive forms, but affixes are introduced to items denoted by ablative forms.¹⁶⁸

11. 1. 3. The syntactic point made earlier [see (D), section 11. 1. 2] gives rise to another issue.

(E) Objection: It is not possible to justify that rules such as (137) A 3. 1. 108 and (139) A 4. 3. 138, which provide for replacements and augments, properly introduce affixes. For the items to which *hanah* (gen. sg.) and *trapujatunoḥ* (gen. du.) refer are related to a substitute and an augment, and the items in question are not referred to here by ablative forms.¹⁶⁹ Therefore, what these rules should provide is properly established only if one has in them ablative forms referring to the bases in question.¹⁷⁰

168. A 3. 1. 1 vts. 4, 5 : विकारागमेषु च परविज्ञानात् । षष्ठीनिर्दिष्टस्य च तद्युक्तत्वात् । Bh. II. 2. 17 : षष्ठीनिर्दिष्टं विकारागमयुक्तं पञ्चमीनिर्दिष्टाच्च प्रत्ययो विधीयते । An ablative form such as *guptikīdibhyah* is construed with the direction term *paraḥ* of (93) A 3. 1. 2 (by A 2. 3. 29 : अन्यारादितरर्तदिकशब्दाञ्चूत्तरपदाजाहियुक्ते ।). In accordance with A 1. 1. 46 : षष्ठी स्थानेयोगा । a genitive is used to signify a substituend, and a partitive genitive (by A 2. 3. 50, note 146) is used with reference to an item that gets an augment.

169. A 3. 1. 1 vt. 6 : प्रत्ययविधानानुपपत्तिस्तु । Bh. II. 2. 19-21 : प्रत्ययविधिस्तु नोपपद्यते । क्व । यत्र विकारागमा विधीयन्ते । हनस्त च । त्रपुजतुनोः पुगिति । किं पुनः कारणं न सिध्यति । विकारागमयुक्तत्वादपञ्चमीनिर्दिष्टत्वाच्च ।

170. A 3. 1. 1 vt. 7 : तस्मात्तत्र पञ्चमीनिर्देशात्सिद्धम् । Bh. II. 2. 23 : तस्मात्तत्र पञ्चमीनिर्देशः कर्तव्यः ।

(F) Answer: One does not have explicitly to state ablative forms in the rule under consideration. In the case of (137) A 3. 1. 108, the ablative *dhātoḥ* recurs from the heading (90) A 3. 1. 91 (section 7. 1), and *prātipadikāt* of the heading (88) A 4. 1. 1 recurs in (139) A 4. 3. 138.¹⁷¹

(G) Objection to (F): If this is accepted, then (137) A 3. 1. 108 provides that *t* replaces the *-n* of *han*, referred to by the genitive *hanaḥ*, and that *KyaP* follows a base denoted by the ablative *dhātoḥ*, so that the affix undesiredly obtains after any verb at all.¹⁷²

(H) Answer: This fault does not come about. For the teacher makes known that *KyaP* does not follow just any verb, since in

(140) A 3. 1. 109 : एतिस्तुशास्वृद्वजुषः क्यप् ।

he lists a group of verbs that take this affix.¹⁷³

(I) Alternative answer to (G): The term *hanaḥ* will be connected with the ablative *dhātoḥ*, so that (137) A 3. 1. 108 provides for two things: *t* replaces the *-n* of *han*, and *KyaP* follows the verb *han*.¹⁷⁴

11. 1. 4. The basis for the entire discussion summarized in sections 11. 1. 1–11. 1. 3 is the manner in which Pāṇini allows for certain elements to bear the class name *pratyaya*. Now, to list all affixes covered in the Aṣṭādhyāyī in a single sūtra, say

171. Bh. II. 2. 23–24 : न कर्तव्यः । इह तावद्धनस्त चेति धातोरिति वर्तते । इह त्रपु-जतुनोः घुगिति प्रातिपदिकादिति वर्तते ।

172. Bh. II. 2. 24–25 : यथेवं हनस्त च धातोः क्यब् भवतीति धातुमात्रात् क्यप् प्राप्नोति । As Kaiyaṭa notes (Pr. III, 10), the objection rests on the assumption that once *hanaḥ*, interpreted as a substituend genitive, has been connected with *ta*, it cannot also be interpreted as an ablative qualifying *dhātoḥ* : हन्तेरादेश-विधातुपयोगाद्विविभक्तिवाच्य धातोरविशेषितत्वादिति भावः ।

173. II. 2. 25–3. 1 : नैष दोषः । आचार्यप्रवृत्तिर्ज्ञापयति न धातुमात्रात् क्यब् भवतीति यदयमेतिस्तुशास्वृद्वजुषः क्यविति परिगणनं करोति ।

174. Bh. II. 3. 1–2 : अथवा हन्तिमेवात्र धातुग्रहणेनाभिसंभन्स्यामः । हनस्तो भवति धातोः क्यब् भवति । कस्मात् । हन्तेरिति । See below with note 187,

that these are called *pratyaya*, and then proceed to introduce them is prolix. Alternatively, Pāṇini could refer to the items in question by means of an abbreviation,¹⁷⁵ in a sūtra

(141) सप् प्रत्ययः ।

The abbreviation *saP* used here should consist of *sa*, the affix *saN* introduced by (134) A 3. 1. 5, and the marker *p* of *kaP*, introduced by 5. 4. 151 : उरःप्रभृतिभ्यः कप् । and subsequent rules, through 5. 4. 154 : शेषाद्विभाषा । That is, *saP* should refer to all the affixes introduced by rules of the third, fourth, and fifth adhyāyas. However, *saP* is an ambiguous term, which could refer to a set that does not include all affixes or to a group larger than desired. For the marker included in *saP* could also be the *p* of *siP* in 3. 1. 34 : सिव् बहुलं लेटि । or of *taP* and *tanaP*, introduced in 7. 1. 45 : तप्तनप्तनथनाश्च । as replacements in Vedic verb forms for the second plural ending *ta*. It is understandable, therefore, that Pāṇini should introduce the class name *pratyaya* by means of the heading (92) A 3. 1. 1.¹⁷⁶

Any such heading is understood to recur in subsequent rules of a section. In some instances, the heading can form a single sentence of related words with the terms of a subsequent rule. For example, *dhātoḥ* of (90) A 3. 1. 91 is understood in

(142) A 3. 1. 97 : अचो यत् ।

which provide that the affix *yaT* follows a verb which ends in a vowel.¹⁷⁷ Accordingly, (142) A 3. 1. 97 is partly expanded to

175. I assume this for the sake of argumentation. For Pāṇini regularly uses abbreviations with markers (by A 1. 1. 71 : आदिरन्त्येन सहेता ।) to denote members of ordered sets of sounds in his *akṣarasamāmnāya* or of ordered sets of grammatical units given in a sūtra, not to designate a group of grammatical elements given in a long series of rules.

176. Commentators consider the possibility of a rule (141) and the problems that arise from this; see, for example, Nyāsa II, 332, PM II, 331 Pr. III, 3.

177. *acah* denotes an item ending with a vowel, according to A 1. 1. 72 : येन विविस्तदन्तस्य ।

अजन्ताद्वातोयत् । In other instances, however, a heading and a subsequent rule cannot be combined in the way mentioned. The two then form only a single context of separate utterances. It is possible to construe (92) A 3. 1. 1 with subsequent rules in both these ways, depending on what one presupposes. Let us assume that, since a class name such as *pratyaya* can be assigned only to existent elements, one must first have the items to which this name is given and only then assign the name to them. Under this view, one can insist that (92) A 3. 1. 1 and a rule such as (134) A 3. 1. 5 cannot be combined into a single utterance. They form instead a single context of separate utterances :

(r) गुसिज्जिद्भ्यः परः सन् भवति । ‘*saN* occurs after

gup, tij, kit.’¹⁷⁸

(s) सन् प्रत्ययसंज्ञो भवति । *saN* has the class name *pratyaya*. First *saN* is allowed to occur, then it is given the name *pratyaya*.¹⁷⁹ This is not absolutely necessary, however, since one can indeed have a single utterance that concerns a qualified entity. For example,

(t) उद्भिदा यजेत पशुकामः । ‘One who desires cattle should perform the Udbhid rite’

is not understood as two separate utterances, one providing the name *udbhid*; it is understood as a single utterance enjoining one to perform a particular rite.¹⁸⁰ Similarly, (92) A 3. 1. 1 and (134) A 3. 1. 5 can be brought together to form a single utterance that provides for the occurrence of *saN* qualified as having the name *pratyaya* : गुसिज्जिद्भ्यः परः प्रत्ययसंज्ञकः सन् भवति ।¹⁸¹ Nevertheless, the objection made under (A) (section 11. 1. 1) is best understood as based on the assumption that (92) A 3. 1. 1 and subsequent rules always form single contexts of separate

178. The term *paraḥ* is supplied by (93) A 3. 1. 2 (section 7. 1); *bhavaati* is understood according to normal Sanskrit usage.

179. See, for example, Pr. III. 3-4, PM III. 333, S’K. II. 302.

180. See JS 1. 4. 1. 1-2 with Śabara’s Bhāṣya.

181. See S’K I, 77, II, 302, Ud. III, 7.

utterances, one of which is comparable to (s) and provides that an item given in a sūtra has the name *pratyaya*. As one can thus let an element like *saN* bear this class name, the argument goes, there is nothing to preclude assigning the same name to elements such as *gup*, *tij*, *kit*, and so on. This would have the undesired results noted. Thus, a base such as *gup* would now always follow some other word, so that a term like *jugupsate* would not be allowed to open an utterance. The grammar would now also allow only

(u) भोक्तुं व्रजति । 'He is going to eat'

not also

(v) व्रजति भोक्तुम् । 'He is going to eat.'¹⁸²

For, since the upapada *vraj* is now possibly a *pratyaya*, it must follow another term. Similarly, one would now allow *इतिहरिः पशुः* but not *पशुर्इतिहरिः*. Further, the grammar would now allow not only *trāpuṣā* and *jātuṣā* but also **trāpuṣa* and **jātuṣa*, with high-pitched base vowels.¹⁸³

However, as shown under (B) (92) 3. 1. 1 does not assign the name *pratyaya* to items such as *gup* even if one insist on the procedure that involves separate sentences like (r) and (s). In sentences of the type *इदमुत्पद्यते* । 'This comes into being', *इदं भवति* । 'This occurs', a nominative form is used with reference to something that comes into being, newly occurs, and in sentences of the type *इदममुकसंज्ञकं भवति* । 'This has such and such a name', a nominative form is used of something that bears a particular name. On the other hand, an ablative ending — as in *guptijki-dbhyah* — or a locative ending — as in *stambakarṇayoḥ* — is a *bhūtavibhakti*, an ending used in speaking of something that has already come into being. Terms with these endings refer to given entities that can serve to condition the occurrence of new elements, and they do not refer to items which themselves are subject to

182. An infinitive like *bhoktum* (A 3. 3. 10 : तुमुन्णुलौ क्रियायां क्रियार्थायाम् ।) should, of course, be allowed to occur in a sentence such as (v).

183. On the problems noted, see Pr. III. 5, PM III. 332-333, SK. II. 301.

operations. From rules such as (134) A 3. 1. 5, then, one cannot get sentences like (s) providing that *gup* etc. have the name *pratyaya*, since one has terms such as *guptikidbhyaḥ* and not the appropriate nominative forms.¹⁸⁴ Now, a class name like *pratyaya* has to be linked with something that bears the name, so that *pratyayaḥ* of (92) A 3. 1. 1 has an expectancy in that it requires being connected with terms referring to things that bear this name. One could tentatively allow this expectancy to be met by letting *pratyayaḥ* be connected either with elements like *saN* or with other elements, like *gup*. One could alternatively require from the outset that the expectancy be fulfilled in one way only. This is the difference between (B₁) and (B₂). Under (B₁), *pratyaya* might tentatively be linked with items like *gup*, but this is disallowed because the elements in question serve to condition the occurrence of others. Under (B₂), it is required from the outset that *pratyaya* be connected only with primary elements.¹⁸⁵ The main point of (B), however, is simply that (92) A 3. 1. 1 will let the class name *pratyaya* apply only to elements that are newly introduced by subsequent rules.

Of course, the *t* which substitutes for the *-n* of *han* by (137) A 3. 1. 108 and the *ṣ* that is added to *trapu* and *jatu* according to (139) A 4. 3. 138 are newly introduced elements in terms of the derivational system Pāṇini uses. Hence, the problem brought up in (C) has to be faced, as shown in (D) (section 11. 1. 2).

Rules like (137) A 3. 1. 108 and (139) A 4. 3. 138 involve another problem, brought up in (E) (section 11. 1. 3). These

184. Pr. III. 6 : निमित्तस्येति । (A 3. 1. 1 vt. 2; प्रकृत्यादीनां भूतविभक्त्या निर्देशात्सनाद्युत्पत्तौ निमित्तभावेनोपादानात्पारार्थ्यात्स्वसंस्कारं प्रति प्रयोजकत्वाभावादित्यर्थः ।

185. Pr. III. 6-7 (on 3. 1. 1 vt. 2) : तत्र वाक्यभेदेनापि विधीयमाना प्रत्ययसंज्ञा सनादिभिरेव संबद्ध्यते तेषामेव निमित्तत्वात्तानां प्रति प्रयोजकत्वात् । संज्ञासंबन्धप्रतिपत्तियोग्य-विभक्तिनिर्देशात् । द्वयोश्च परस्परकाङ्क्षायां संबन्धो न त्वन्यतरकाङ्क्षायां सीतारावणयोरिवेति सत्यामपि संज्ञाया आकाङ्क्षायां प्रकृत्यादीनां विशेषणत्वादनकाङ्क्षत्वात्संज्ञासंबन्धाभाव इत्युक्तं भवति । Pr. III. 7-8 (on A 3. 1. 1 vt. 3) : प्रत्ययसंज्ञा स्वविषयप्रकृत्यस्य न तु पारतन्त्र्याद-प्रधानमित्यर्थः । Uḍ. III. 8 : पूर्वं प्रत्ययसंज्ञाया आकाङ्क्षामङ्गीकृत्य प्रकृत्यादीनां निरपेक्षत्वा-त्संज्ञाभाव इत्युक्तम् । इदानीं तु प्रत्ययसंज्ञाया अपि गुणभूतेष्वाकाङ्क्षा नास्तीति प्रतिपाद्यत इति विशेष इति भावः ।

rules contain two genitive forms, one referring to a substituend (*hanah*), the other denoting items to which an augment is to be added as the final segment (*trapujatunoḥ*). However, an affixation rule generally requires an ablative form denoting that to which an affix is introduced. Now, as noted under (F), the ablative *dhātoḥ* construed with *paraḥ* of (93) A 3. 1. 2, is understood to recur in (137) A 3. 1. 108, but one cannot allow the fault alluded to in (G). Yet the suggestion made in (H) is not truly acceptable. By (142) A 3. 1. 97, the *krtya* affix¹⁸⁶ *yaT* follows verbs that end in vowels, as in *ceya* (< *ci-ya*) 'to be heaped, gathered', *ieya* (< *ji-ya*) 'to be conquered', and according to

(143) A 3. 1. 125 : ओरावश्यके ।

NyaT follows a verb in *-n* if the meaning 'necessary ...' is to be conveyed; e.g., *lāvyā* (< *lū-ya*) 'which must necessarily be cut', with *NyaT*, is opposed to *lavya* 'to be cut', with *yaT*. On the other hand, the verbs *i* 'go', *stu* 'praise', *śās* 'instruct', *vr* 'cover', *dr* 'respect', *juṣ* 'enjoy' form gerundives with *KyaP*, not with *yaT* or *NyaT*: *itya* 'to be gone to, ... which one must go to', *stutya* 'to be praised (necessarily)', and so on. There is thus a need for the sūtra introducing *KyaP* after these verbs, so that their listing does not merely serve to show that *KyaP* does not occur with just any verb. The suggestion made in (I), on the contrary, is perfectly acceptable. (137) A 3. 1. 180 says इनस्त च ।, with *ca* 'and, also', providing that the replacement of *-n* by *-t* is an operation which applies in addition to another: the affix *KyaP* follows *han*. In effect, *dhātoḥ* is understood to recur in the sūtra and, since replacing *-n* with *-t* is an additional operation, one also understands an ablative *hanah* construed with *dhātoḥ*.¹⁸⁷ The suggestion made under (F) concerning (139) A 4. 3. 138, though not absolutely wrong, is also not acceptable without qualification. It is undeniable that this sūtra serves to

186. A 3. 1. 95 : कृत्याः ।

187. (137) A 3. 1. 108 is of course not the only sūtra of the Aṣṭādhyāyī that combines related operations and requires interpretation in the way noted; compare, for example, A 3. 1. 80 : विन्विक्वण्वयोर च ।

form derivatives of the type covered by (138) A 4. 3. 134. As I have shown in section 11. 1, this rule has to be interpreted by (116) A 4. 1. 82 (section 8. 5): *aN* optionally follows a nominal form which is the value of *tasya*, the first of two syntactically related padas. The ablative term to be construed with *paraḥ* of (93) A 3. 1. 2, then, is supplied by *prathamāt* of (116) A 4. 1. 82. In addition, if the nominal base (*prātipadika*) of the genitive form that is a value of *tasya* is either *trapu* or *jatu*, the final augment *ṣUK* is added.¹⁸⁸

11. 1. 5. The conclusions reached concerning the headings (92)-(93) A 3. 1. 1-2 and the class name *pratyaya* are the following :

(J) By (92) A 3. 1. 1, the class name applies to elements that are newly introduced in subsequent rules, these elements being denoted by nominative forms such as *san*, which are coreferential with *pratyayaḥ* and other nominative forms of *pratyaya*.

(K) (93) A 3. 1. 2 stipulates that, unless otherwise provided for, an element that has the class name *pratyaya* by (92) A 3. 1. 1 also follows the item to which it is introduced. Any element to be assigned to the *pratyaya* class, then, must at least tentatively be eligible for following what it is introduced to, so that the objection brought up under (C) (section 11. 1. 2) is met.

11. 1. 6. Nevertheless, an alternative way of meeting this objection is suggested. In his eighth vārttika on (92) A 3. 1. 1, Kātyāyana suggests that replacements and augments do not get the class name *pratyaya* by this sūtra because assignment of this name depends on meaning: Only an item which conveys a meaning is called *pratyaya*.¹⁸⁹ As Patañjali goes on to explain,

188. Thus, for example, Kāś. 4. 3. 138 : त्रपुजतुशब्दाभ्यामण् प्रत्ययो भवति विकारे तत्सन्नियोगेन तयोः पुगागमो भवति ।

189. A 3. 1. 1 vt. 8 : अथश्रयत्वाद्वा । Bh. II. 3. 4 : अथवार्थाश्रयः प्रत्ययविधिः । यस्तमर्थं संप्रत्याययति स प्रत्ययः । Nāgeśa (Ud. III. 12) has a reading यः स्वमर्थं in-

(Continued on the next page)

this suggestion is based on the assumption that *pratyaya* is used in an etymological meaning, so that one need not say explicitly that only an item which conveys a meaning takes this name. And *pratyaya* is assumed to be used in an etymological meaning because it is a long term. Since a grammarian introduces such technical terms for brevity — to allow referring to groups of items without listing them repeatedly — a class name should be as short as possible, ideally a monosyllable. Introducing the long term *pratyaya* must therefore have a special purpose : This is done so that the term be understood to have an etymological meaning. Thus, a *pratyaya* is an item which causes one to understand a meaning : प्रत्याययतीति प्रत्ययः.¹⁹⁰ The *t* which replaces the *-n* of *han* has no meaning, so that it is not given the name *pratyaya*. The question whether the meaning 'modification' should be attributed to the *-a* or the *-ṣ-* of *trāpuṣa*, *jātuṣa* is decided by other derivatives. Thus, *bailva* (< *bilva-a*) 'made of Bilva wood' has *-a*¹⁹¹ but no *-ṣ* added to the base *bilva*, so that the meaning in question is attributed to *-a*, which is thereby an affix.¹⁹²

(Continued from the last page)

stead of यस्तमर्थ, and the Nirṇayasāgara Press edition (III. 6) adopts Nāgeśa's reading. However, Kielhorn does not record this reading from any of his manuscripts. In addition, यस्तमर्थ is supported by another Bhāṣya passage (I. 2. 11) : दुष्टः शब्दः स्वरतो वर्णतो वा मिथ्या प्रयुक्तो न तमर्थमाह । Moreover, it is understandable that, in a passage where an attempt is made to show that an affix must have a meaning, यः स्वमर्थ should be introduced in place of an original reading यस्तमर्थ. In sum, I think the reading adopted in Kielhorn's edition must be accepted.

190. Bh. II. 3. 4-8 : किं वक्तव्यमेतत् । न हि । कथमनुच्यमानं गंस्यते । प्रत्यय इति महती संज्ञा क्रियते । संज्ञा च नाम यतो न लघीयः । कुत एतत् । लघ्वर्थं हि संज्ञाकरणम् । तत्र महत्याः संज्ञायाः करण एतत् प्रयोजनमन्वर्थसंज्ञा यथा विज्ञायेत । प्रत्याययतीति प्रत्ययः । See also note 201.

191. A 4. 3. 136 : विल्वादिभ्योऽण ।

192. Bh. II. 3. 10-13 : एवमपि कुत एतः समानेऽपूर्वोपदेशे त्रापुषस् जातुषमित्यत्राकारस्तमर्थं संप्रत्याययति न पुनः षकार इति । अन्यत्राप्यकारेण तस्यार्थस्य वचनान्मन्यामहे-ऽकारस्तमर्थं संप्रत्याययति न षकार इति । क्वान्यत्र । विल्वादिभ्योऽण वैल्वः ।

11.1.7. The claim that an item must convey a meaning in order to have the class name *pratyaya* by (92) A 3. 1. 1 meets with a serious objection. Under this position, this name does not apply for elements such as the *ka* of *avika* (see section 11.1). For, as Patañjali puts it in unambiguous terms, these elements do not convey anything : न हि ते किञ्चित् प्रत्याययन्ति ।¹⁹³ To get around this difficulty and still maintain that *pratyaya* must be understood etymologically, a defender of the position then makes another suggestion : Let *pratyaya* be interpreted as an object noun referring to something that is conveyed.¹⁹⁴ On the face of it, this makes no sense, since what is conveyed is a meaning, not an affix. One must, therefore, conclude that this interpretation rests on a metaphor : A property that pertains to a meaning is extended to a speech unit, so that the latter is said to be conveyed.¹⁹⁵ Moreover, since it has been stated without retraction that affixes like the *ka* of *avika* do not convey any meaning, there is only one way to make sense of the suggestion that these elements still are entitled to have the name *pratyaya*, even though this is given an etymological interpretation : The claim is that a unit whose putative meaning is conveyed by the item to which it is added is, by virtue of having this meaning conveyed, a *pratyaya* in the sense that it too can, by extension, be said to be conveyed.¹⁹⁶

Of course, this second interpretation of *pratyaya* cannot be accepted at the expense of the first. For if one adopted this interpretation alone, the class name *pratyaya* would not apply to items like the *saN* of *cikīrṣa* and other affixes which do signify meanings of their own. Therefore, it is finally suggested that *pratyaya* be interpreted in both ways :

193. Bh. II. 3. 8-9 : यदि प्रत्याययतीति प्रत्ययोऽविकादीनां प्रत्ययसंज्ञा न प्राप्नोति । न हि ते किञ्चित् प्रत्याययन्ति ।

194. Bh. II. 3. 9 : एवं तर्हि प्रत्याय्यते प्रत्यय इति ।

195. Pr. III. 11 : प्रत्याय्यत इति । अभिधेयधर्मस्याभिधान उपचारादेवमुक्तम् ।

196. Pr. III. 11 : अयमत्रार्थः । यस्यार्थः प्रकृत्या प्रत्याय्यते स प्रत्याय्यमानार्थत्वात् प्रत्याय्यमानः स्वार्थिकः प्रत्ययसंज्ञो भवति ।

pratyaya : an agent noun that refers to an element which conveys a meaning of its own.

pratyaya : an object noun that refers to an element whose putative meaning is conveyed by an item to which it is introduced.¹⁹⁷

11. 1. 8. Patañjali thus unequivocally admits that affixes such as the *ka* of *avika*, which latter Pāṇinīyas call *atyantasvārthika* affixes, have no meanings of their own. Indeed, Patañjali explicitly says such items convey nothing (see section 11. 1. 7 with note 193). That these affixes are nevertheless considered to be linked with some meaning is based on the assumption that the class name *pratyaya*, interpreted etymologically, applies only to items that are connected with meanings. Moreover, this position is taken in order to avoid assigning the name *pratyaya* to replacements and augments, although, as has been shown (section 11. 1. 2), this can be avoided without adopting for *pratyaya* the etymological interpretations suggested.

11. 2. Later Pāṇinīyas also admit that *atyantasvārthika* affixes do not have meanings truly of their own, even if they try to maintain that all elements called *pratyaya* have to be meaningful, so that all *svārthika* affixes, both cosignifiers and those which are absolutely redundant, must somehow be connected with meanings. It will suffice here to consider some points made by Bhartṛhari, Bhaṭṭoji, and Nāgeśa.

11. 2. 1. Recall that in his fifth vārttika on (105) A 4. 1. 3 (section 8. 1 with note 91) Kātyāyana adopts the position that *strī* used in this sūtra refers to something that qualifies a base meaning. Now, for reasons that do not have to be considered here, it is also accepted that femininity consists in the diminution of constituent elements which make up beings and that this femininity is itself a property. Reflecting this position, Bhartṛhari says that if one describes the term *strī* as denoting

197. Bb. II. 3. 9-10 : एवमपि सनादीनां न प्राप्नोति । एवं तद्धर्मसाधनोऽयं कर्तृ-
साधनः कर्मसाधनश्च ।

only this property, so that the meaning in question pertains to the item with which an affix occurs, then feminine affixes like *TāP* are *svārthika*.¹⁹⁸ Bhartṛhari's wording leaves no doubt whatever that, under the view maintained, such affixes do not have meanings proper to them. Indeed, he alludes elsewhere to the view that an affix such as the *ra* of *kuṭīra* [see (113) A 5. 3. 88, section 8. 4] is meaningless. If *kuṭīra* is split into components *kuṭī* and *ra*, one of these definitely is to be considered meaningful, *kuṭī*, but scholars differ, Bhartṛhari tells us, about the status of *ra*. Some consider this element meaningless. Consequently, they do not accept that in *kuṭīra* two elements, one meaningful the other meaningless, enter into a relation, since this would involve two meanings. Others maintain that *ra* is indeed meaningful, by virtue of cosignifying the meaning 'small', so that two elements do enter into a relation here.¹⁹⁹ Of course, although *ra* only serves as a cosignifier of a meaning attributed to *kuṭī*, it is required if this meaning is to be conveyed. Not even this condition is met in the case of *atyanta-svārthika* affixes, which Bhartṛhari also considers.

Consider again the derivatives *avika*, *yāvaka* (see section 10. 1). Since *avi* and *yāva* are separate meaningful terms, one can analyze *avika*, *yāvaka* into *avi*, *yāva* and *ka* (see section 11. 1). For the present discussion it will be useful to distinguish between homophonous elements: *avi*₁, *yāva*₁ and *avi*₂, *yāva*₂. The latter are the components *avi*, *yāva* in *avika*, *yāvaka*. No one will care to deny that *avi*₁, *yāva*₁, *avika* and *yāvaka* are independently meaningful items. Nor can one deny that *avika* and *yāvaka* can be divided into components. One could well deny, however, that *avi*₂ and *yāva*₂ are independently meaningful. Speakers use *avika* and *yāvaka*, which can therefore be considered

198. VP 3.14.175 : गुणमात्राभिधायित्वं स्त्रीशब्दे वर्ण्यते यदा ।

प्रकृत्यर्थश्च संस्त्यानं स्वार्थिकाः प्रत्ययास्तदा ॥

199. VP 2.207 : सार्थकानर्थकौ मेदे संबन्धं नाधिगच्छतः ।

अधिगच्छत इत्येके कुटीरादिनिदर्शनात् ॥

Puṇyārāja (VPc 325) : ... चोत्पेनार्थेनार्थवत्त्वादपरे संबन्धमधिगच्छत इत्याहुः ।

complexes that must be used as such if meanings are to be conveyed. Under this view, Bhartṛhari says that some *svārthika* affixes occur in separate complexes combined with a meaningless element. That is, since *avi*₂ and *yāva*₂ are now not treated as meaningful, a status granted only to the complexes *avika* and *yāvaka*, the affixes *ka* and *kaN* of these complexes are said to occur with meaningless items. Of course, *avi*₂ and *yāva*₂ are homophonous with *avi*₁ and *yāva*₁. If, then, one assumes simply that *avika* and *yāvaka* contain *avi* and *yāva*, which are meaningful, one can say that *ka* and *kaN* do occur with meaningful elements. This entails accepting that these *svārthika* affixes merely echo meanings which pertain to items they follow.²⁰⁰

11. 2. 2. In the Śabdakaustubha on (92) A 3. 1. 1, Bhaṭṭoji accepts that in order to keep the class name *pratyaya* from applying to replacements and augments [cf. section 11. 1. 2 (C)] this term should be interpreted etymologically: It denotes an element by means of which one understands a meaning.²⁰¹ This meets with a familiar objection (cf. section 11. 1. 7): Then affixes like *ka* by (124) A 5. 4. 28 (section 10. 1) as well as *samāsānta* affixes (section 10. 2) would not be called *pratyaya*, since they are meaningless. Bhaṭṭoji answers that this objection should not be made, since in the accepted view *svārthika* affixes like these are also meaningful, by virtue of having the meanings of items with which they occur.²⁰² Bhaṭṭoji makes the same point in the Prauḍhamanoramā, commenting on which Nāgeśa

200. VP 2. 191 : तथैव स्वार्थिकाः केचित्संघातान्तरवृत्तयः ।

अनर्थकेन संसृष्टाः प्रकृत्यर्थानुवादिनः ॥

201. SK II. 302 : नन्वेवमपि विकारागमानां विधेयतया प्राधान्यात्संज्ञा द्ववरेति चेन्मैवम् अन्वर्थसंज्ञाविज्ञानात् । प्रतियन्त्यनेनार्थमिति हि प्रत्ययः । विकारागमौ त्वनर्थकौ । As can be seen from this citation, Bhaṭṭoji's analysis of *pratyaya* as an instrument noun differs from that of Patañjali, who treats the term as an agent noun (see notes 190, 197). The analysis which Bhaṭṭoji gives appears also in earlier commentatorial literature (e. g., Nyāsa, PM II. 334).

202. SK II. 305 : न चैवमवेः क इत्यादीनां समासान्तानां च प्रत्ययसंज्ञा न स्यादनर्थकत्वादिति वाच्यम् । स्वार्थिका अपि प्रकृत्यर्थेनार्थवन्त एवेति सिद्धान्तात् ।

remarks that what is meant is that the affixes in question have the property of meaningfulness imposed on them.²⁰³ Bhairava Miśra appropriately remarks that Nāgeśa points this out because these affixes lack true meaningfulness.²⁰⁴

11. 2. 3. In his Paribhāṣenduśekhara Nāgeśa introduces the paribhāṣā *anirdiṣṭārthāḥ* ... (see section 7. 4 with note 77) as he does other metarules of this collection, by stating an objection to be met: The property of being affixes, namely the property of conveying meanings, does not apply correctly to *atyantasvārthika* affixes. The objection is met by the paribhāṣā, and Nāgeśa explains that the fault brought up does not hold, since an absolutely redundant affix also has the property which is supposed to characterize all affixes. For it is accepted that a *pratyaya* is not only an item that conveys a meaning but also one whose putative meaning is conveyed by the item to which it is added.²⁰⁵ I have said 'whose putative meaning', although Nāgeśa says simply *यस्यार्थः* 'whose meaning', for the simple reason that he cannot have meant anything else. After all, Nāgeśa explicitly says the meaning supposed to pertain to an *ātyantasvārthika* affix is conveyed by that affix's *prakṛti*, and in his commentary on the Prauḍhamanoramā he speaks of such an affix having a meaning imposed on it (see section 11. 2. 2 with

203. Prauḍh. 341 : एवं कप्रत्ययोऽप्यर्थवानेव । स्वार्थिकानां प्रकृत्यर्थेनैवार्थवत्त्वात् ।
S'R 341 : अर्थवत्त्वादिति । आरोपितार्थवत्त्वादित्यर्थः ।

204. Bhairavi 341 : मुख्यार्थवत्त्वाभावादाह आरोपितेति ।

205. PIS'a 191 : नन्वत्यन्तस्वार्थिकानामर्थप्रत्यायकत्वरूपप्रत्ययत्वानुपपत्तिरत आह अनिर्दिष्टार्थाः प्रत्ययाः स्वार्थे । यस्यार्थः प्रकृत्या प्रत्याप्यते सोऽपि प्रत्यय इत्यस्याप्यङ्गीकारात्तस्य प्रत्ययत्वमिति न दोषः । In accordance with the claims made earlier in the Mahābhāṣya (see section 11. 1. 6-7), Nāgeśa goes on to remark that the paribhāṣā *anirdiṣṭārthāḥ* ... has the following basis: Since *pratyaya* is a long term, one expects a meaning for an element bearing this name, and no meaning appears other than those of items to which *atyantasvārthika* affixes are added: महासंज्ञाबलादर्थाकाङ्क्षायामन्यानुपस्थितिरस्या वीजम् ।

note 203). Moreover, Nāgeśa's own student, Vaidyanātha, notes that Nāgeśa means a putative meaning.²⁰⁶

11. 3. Pāṇinīyas from Patañjali down to the modern period thus agree that the *paribhāṣā anirdiṣṭārthāḥ* ... concerns affixes associated with meanings proper to items with which they are used and that *atyantasvārthika* affixes such as those considered in sections 10. 1-10. 2 have absolutely no meanings which one say they even cosignify. On the contrary, such affixes can be treated as meaningful only by virtue of having meanings imposed on them, on the assumption that all affixes must be linked with meanings.

11. 4. The view that the class name *pratyaya* introduced in (92) A 3. 1. 1 is to be interpreted etymologically, so that an affix must have some meaning, is set forth again and again in the course of discussions by Pāṇinīyas (see sections 11. 1, 11. 3), but repetition does not make truth, so that we have to consider whether this view should be entertained seriously.

11. 4. 1. It is not the case that when Pāṇini uses a long class name like *pratyaya* he thereby necessarily intends that the term be understood etymologically. Consider now two of the rules that assign the name *avyaya* to certain items :

(144) A 1. 1. 37 : स्वरदिनिपातमव्ययम् ।

(145) A 1. 1. 41 : अव्ययीभावश्च ।

According to the first sūtra, members of the group that begins with *svar* 'sun, heaven' and items of the *nipāta* class are called *avyaya*; the next rule provides that this class name applies also to compounds of the *avyayībhāva* group. The term *avyaya* could

206. Gadā 225 : यस्यार्थे इति । तत्त्वेनाभिमत इत्यर्थः । In his *Laghuśabdenduśekhara* (II. 41-42), Nāgeśa explicitly says an element can have the class name *pratyaya* if it conveys its own meaning or the meaning of the item to which it is added, thus acknowledging again that *atyantasvārthika* affixes have meanings only by imposition : विकारागमानां तु न तत्संज्ञा प्रत्यय इति महासंज्ञया स्वस्य प्रकृत्यन्यतरार्थप्रत्यायकस्यैव तत्संज्ञकत्वात् ।

be interpreted etymologically, and it has indeed been interpreted thus. According to a verse cited in the Mahābhāṣya and found in the Gopathabrāhmaṇa, an *avyaya* is an item that remains the same regardless of gender, of roles played in activities such that one would use different case endings with other nominals, and of different numbers; in brief, an *avyaya* is an item that does not vary.²⁰⁷ The fact is, however, that not all the *avyayas* are truly invariant. Generally, any nominal ending is deleted after an *avyaya* :

(146) A 2. 4. 82 : अव्ययादाप्सुपः ।

But special operations apply with respect to *avyayībhāva* compounds in -ā. After such an *avyaya*, an ending is not deleted but replaced by *am*, except for a fifth-triplet ending, which remains :

(147) A 2. 4. 83 : नाव्ययीभावादतोऽस्त्वपञ्चम्याः ।

For example, आ उपकुम्भात्, आ उपमणिकात् (cf. Bh. I. 499. 9). Moreover, third-triplet and seventh-triplet endings may remain or be replaced by *am* after an *avyayībhāva* in -ā :

(148) A 2. 4. 84 : तृतीयासप्तम्योर्बहुलम् ।

Clearly, although a compound such as *upakumbha* is given the class name *avyaya* by (145) A 1. 2. 41, it is not truly invariant. Nor can one say that Pāṇini uses the long term *avyaya* so that it be understood in an etymological sense.²⁰⁸

11. 4. 2. In addition, considering that *pratyaya* is a long term meant to be understood in an etymological sense is only one

207. GBr. 1. 1. 26, Bh. I. 96. 16-17 : सदृशं त्रिषु लिङ्गेषु सर्वासु च विभक्तिषु ।

वचनेषु च सर्वेषु यन्न व्येति तदव्ययम् ॥

208. Similarly, although Pāṇini assigns the class name *avyayībhāva* to a group of compounds (A 2. 1. 5 : अव्ययीभावः ।) and this is a long term, Pāṇini obviously does not intend this to be understood etymologically, contrary to the claim made in the Mahābhāṣya (I. 373. 17-18). As Patañjali himself notes (Bh. I. 373. 18-19), if Pāṇini had intended this, (145) A 1. 1. 41 would not have to be formulated : *avyayībhāva* would signify only items that become indeclinable,

of the two possible ways suggested to keep this class name from applying to substitutes and augments (see sections 11. 1, 5, 6). Moreover, there is more than one possible sense that could be attributed to *pratyaya*. For, although *prati-i* and *sam-prati-i* are used in the meaning 'understand', the fact is that *pratyaya* is used also with reference to an element that follows another. Thus, according to

(149) RPr. 2. 56 : आर्ष्यमेव सन्ध्यकारपूर्वो विवृतेश्च

प्रत्ययः सन्नुकारः ।

the sound *u* remains in its original form if, in the *saṃhitā* text emanating from the ṛṣis, it is preceded by *y* that derives from *i* or it follows the break between vowels in hiatus; for example, in RV 10. 65. 10d : इन्द्रियं सोमं धनसा उ ईमहे । the particle *u* follows the break between two sounds in hiatus.²⁰⁹ The term does not refer to an affix here. Similarly, *pratyaya* in

(150) VPr. 3. 9 : प्रत्ययसवर्णं मुदि शाकटायनः ।

refers to an item that follows another.²¹⁰ The *sūtra* provides that, according to *Sākaṭāyana*, *-h* followed by a voiceless spirant changes to a sound identical with the one that follows. *Pratyaya* thus used can be connected only with *prati-i* 'come after, follow', and one could claim that *pratyaya* of (92) A 3. 1. 1, if it is to be interpreted etymologically, should be given the same interpretation : An affix is termed *pratyaya* because it follows an item to which it is introduced, as stated in (93) A 3. 1. 2.²¹¹ Certainly

209. Cf. Uvaṭa (on (149) RPr. 2. 56) : विवृतेस्तु परभूत उकारः प्रकृत्या भवति ।

210. In his commentary on (150) VPr. 3. 9, Anantabhaṭṭa explicitly notes that *pratyaya* here means 'following' : प्रत्ययशब्दोऽत्र परवचनः ।

211. But of course not every member of the *pratyaya* class follows an element to which it is introduced, so that this etymological interpretation of *pratyaya* is also untenable. (93) A 3. 1. 2 provides for what holds in general, but an affix may also precede an item or be infix. Thus, A 5. 3. 68 (note 116) specifies that *bhuC* precedes elements to which it is introduced, and infix affixes are marked with *m* to show that they occur after the last vowels of elements to which they are introduced [A 1. 1. 47 : मिदचोऽन्त्यात्परः ।].

this has as much right to be accepted as does the claim that Pāṇini uses *pratyaya* in order that this class name apply only to meaningful elements. In fact, the interpretations entertained by Pāṇinīyas have less to recommend them, since they require that *pratyaya* be both an object noun and an agent or instrument noun and that, moreover, the object noun *pratyaya* refer only metaphorically to *atyantasvārthika* affixes (see section 11. 1. 7).

11. 4. 3. There is also a logical difficulty to consider. The very reasoning which allows one to attribute particular meanings to components of complex terms (see sections 7. 2-7. 3) forces one to say that components such as the *ka* of *avika* have no meanings of their own (see section 11. 1). Pāṇinīyas from Patañjali on in fact admit this (see sections 11. 1. 7-11. 2. 3). Therefore, assuming that such affixes are meaningful by imposing on them meanings proper to the items with which they occur amounts to nothing more than an assumption vitiated by circularity. In effect, one is saying that because an element such as the *ka* of *avika* is abstracted as a *pratyaya* it is meaningful, hence introduced *svārthe*, and because such an element is meaningful by virtue of being introduced *svārthe* it is correctly a *pratyaya*.²¹²

Bhaṭṭoji argues that this objection, raised specifically against attributing meanings to *atyantasvārthika* affixes, is unjust, since the whole separation of base meanings and affix meanings is based on an assumption—that components have separable meanings—so that there is no difference in this respect between *svārthika* affixes and others. The true units of communication,

212. Pr. III. 11 (on Bh. II. 3.8-9 [note 193]): न हि त इति । अन्वयव्यतिरेकाभ्यां कादीनां वाच्योऽर्थो नावधार्यते । तदभावेऽपि केवलाया एव प्रकृतेस्तदर्थविगमात् । नापि तत्त्वादिवत्कश्चिद् द्योत्योऽर्थ इति भावः । यदप्युच्यते अनिर्दिष्टार्थाः प्रत्ययाः स्वार्थे भवन्तीति प्रकृत्यर्थे एव तेषामर्थ इति तदपि कल्पनामात्रम् । सत्यर्थवत्त्वे प्रत्ययसंज्ञया भाव्यमित्यभिहिते तदभावे स्वार्थविगमादर्थवत्त्वं कादीनां नोपपद्यत इत्युक्तस्य दुरुत्तरत्वात् । PM II. 334-335 : यदप्युच्यते अनिर्दिष्टार्थाः प्रत्ययाः स्वार्थे भवन्तीति स्वार्थ एवैषामर्थ इति तदपि कल्पनामात्रम् । अन्वयव्यतिरेकगम्यत्वादर्थवत्त्वस्य । इतरेतराश्रयत्वं च भवति सति प्रत्ययत्वे स्वार्थे विधानम् स्वार्थे विधानाच्चाश्रयवत्त्वे सति प्रत्ययसंज्ञेति ।

after all, are words and utterances.²¹³ Nor can one say that the assumption in respect of *svārthika* affixes in particular lacks the consent of authoritative teachers such as Patañjali, notes Bhaṭṭoji, because it does.²¹⁴

The main point in this defense is unacceptable. To be sure, one can accept that all analysis of sentences and words into componentst, especially of words into bases and affixes, is a fiction, since in reality people communicate in utterances, which are the true meaningful units of speech communication. Yet a grammarian must resort to such fiction in order to describe a language.²¹⁵ Once this is accepted, one must agree on a procedure that will allow one to attribute particular meanings to given units. There is the procedure involving reasoning from *anvaya* and *vyatireka*, accepted by all Pāṇinīyas, and this procedure does not allow one to say that affixes such as the *ka* of *avika* are truly meaningful. To insist that these units too are meaningful, then, is simply to assert an assumption, that all affixes must by definition be meaningful. But this assumption is not supported by reasoning.

11. 4. 4. Finally, there is another technical problem. The view that assigning the class name *pratyaya* to an element by (92) A 3. 1. 1 depends on the element's having a meaning was proposed as an alternative way of not letting (92) A 3. 1. 1 assign the class name to replacements and augments (see section 11. 1. 6). The *t* which replaces the *-n* of *han* by (137) A 3. 1. 108 is a meaningless sound, as is the augment *ṣ* added to *trapu* and *jatu* by (139) A 4. 3. 138, so that these are not given the class name *pratyaya* under this view. However, there are also meaningful replacements. Consider now

213. S'K. II. 302 : यत्तु कल्पनामात्रमेतदिति तन्न । प्रकृतिप्रत्ययार्थविभागस्य सर्वस्यापि कल्पनिकत्वाविशेषात् । Similarly, Praudh. 338-340.

214. S'K. II. 302, Praudh. 341. It is not necessary to discuss here the Mahābhāṣya passage to which Bhaṭṭoji alludes.

215. See sections 15-15. 2 for a discussion of this point.

(151) A 3. 3. 76 : हनश्च वधः ।

This sūtra should provide that *han* is followed by the affix *aP* to signify an abstract act and that *vadha* replaces *han* when this affix is added, on condition that the verb is not used with a preverb : *vadha* (< *vadha-a*) 'killing'. This differs in an obvious manner from (137) A 3. 1. 108 and (139) A 4. 3. 138. Only part of *han* is replaced by *t*, and the augment *ṣ* is added as part of two bases. But *vadha* replaces the whole verb *han*,²¹⁶ and the substitute *vadha* has the status of the substituend *han*,²¹⁷ so that it is a verb [*dhātu* : (94) A 1. 3. 1, section 7. 1]. By the same token, *vadha* has the same meaning as *han*. Moreover, *vadha* is introduced by a rule under the heading (92) A 3. 1. 1. If this provides that items introduced by subsequent rules have the class name *pratyaya* on condition only that they be meaningful, then, the rule could let *vadha* be classed as a *pratyaya*, so that it would be required, undesirably, always to follow some other word. Haradatta simply admits that an effort must be made to preclude this.²¹⁸ Bhaṭṭoji mentions what Haradatta said and suggests a solution to the problem, as follows. The reason for including *ca* in (151) A 3. 3. 76 is not to let *pratyayaḥ* be understood in the rule, since this purpose is already served by the heading (92) A 3. 1. 1. Instead, *ca* is used in (151) A 3. 3. 76 so that an element qualified as bearing this name be understood in the sūtra, which thus states a replacement for *han* which is followed by the *pratyaya aP*. Since the name *pratyaya* is thus related to *aP*, so that there is no expectancy requiring

216. A 1. 1. 55 : अनेकाल्शिस्तर्वस्य ।

217. A 1. 1. 56 : स्थानिवदादेशोऽनखिधौ ।

218. PM II. 335 : अथ हनश्च वधः ... इत्यादौ वधादीनामनेकालानामादेशानां संज्ञा कस्मात् भवति । संभवति हि तेषु परत्वं प्रयोजनम् । यद्यपि स्थानिन आदेशेन निवर्तितत्वान्न तदपेक्षं परत्वं शब्दान्तरापेक्षया स्यादेव परत्वम् ... अतः सर्वथा वधादिषु संज्ञानिवृत्तये यत्नः कर्तव्यः । I have left out some details of the argument, not crucial to the present discussion.

that it be linked with some other element, there is no way it could be connected with *vadha*.²¹⁹

Now, it is obviously desirable that *aP* be classed as a *pratyaya* and that *vadha* not be so classed. It is also obvious that (151) A 3. 3. 76 is comparable in form to (137) A 3. 1. 180. Consequently, it is proper to interpret the former in the same way as the latter, without giving *pratyaya* an etymological interpretation (see section 11. 1. 4): The affix *aP* follows the verb *han*, and in conjunction with this affixation the verb is replaced by *vadha*.²²⁰

11. 5. In view of the points discussed above, I have absolutely no hesitation in concluding that (92) A 3. 1. 1 should not be considered to introduce a class name which applies solely to meaningful elements. It is perfectly proper and in accord with what Pāṇini does elsewhere that this sūtra simply be a heading introducing the class name *pratyaya*, which applies to items introduced by subsequent rules,²²¹ items what are eligible at least tentatively, by the general rule (93) A 3. 1. 1, to follow elements with which they occur [see sections 11. 1. 3 (I), 11. 1. 4 (K), note 211]. It is also in accordance with Pāṇinian procedure that *pratyaya* not be interpreted etymologically (see section 11. 4. 1). Nor does reasoning from *anvaya* and *vyatireka* require that every affix abstracted necessarily be meaningful (see section 11. 1).

Our discussion thus far also allows answers to other questions posed earlier (section 7. 4). It is not only true that Pāṇinīyas consider the meaning designated by *striyām* of (105) A 4. 1. 3

219. S'K. II. 303 : ... तस्मात्कर्तव्योऽत्र यत्न इति हरदत्तः । अत्रेदं वक्तव्यम् । हनश्चेत्यादौ चकारो न प्रत्ययसंज्ञामात्रानुक्त्यर्थः अधिकारादेव तल्लभात् । किन्तु संज्ञा-विशिष्टस्य । एवं च तेनैव निराकाङ्क्षा संज्ञा कथं वधादिभिः संवध्येत ।

220. Thus Kāś. 3. 3. 76 : हन्तेर्धातोरनुपसर्गे भावेऽप्रत्ययो भवति तत्सन्नियोगेन च वधादेशः स चान्तोदात्तः ।

221. Just as, for example, A 2. 1. 5 introduces the class name *anyayibhāva*, which applies to compounds formed by subsequent rules, and the term introduced is not an *anvartahasanjñā* (see note 208).

(section 8. 1) to pertain to bases, so that feminine affixes such as *TāP* by (106) A 4. 1. 4 are said to cosignify meanings and therefore to be introduced redundantly (*svārthe*). It is also to be accepted that the distinction between meanings signified and cosignified by affixes is well founded (see sections 8. 4-8. 6). Moreover, there is good reason to accept that Pāṇini too distinguished between signifiers and cosignifiers, though he does not use *vācaka* and *dyotaka* as opposed terms in connection with such affixes (see section 9). Now, since terms like *striyām*, *kutsite*, *iṣadasamāptau* in (105) A 4. 1. 3, (110) A 5. 3. 74, (111) A 5. 3. 67 (sections 8. 1-8. 3) designate meanings attributed to bases, the cosignifying affixes which these rules introduce can correctly be termed *anirdiṣṭārtha* (see section 7. 4), since meanings proper to the affixes are indeed not stated in the rules. Pāṇini could thus tacitly accept the *paribhāṣā anirdiṣṭārthāḥ* ... (section 7. 4 with note 77) with respect to cosignifying affixes: Such elements, meanings proper to which are not specified in rules of the Aṣṭādhyāyī, are introduced and occur redundantly, in meanings proper to the items they accompany. On the other hand, Pāṇini could not accept this *paribhāṣā* in respect of *atyantasvārthika* affixes such as the *ka* of *avikā* (see sections 10. 1-10. 5). For these totally redundant affixes cannot be said even to cosignify any meaning and, as I have shown, there is no reason whatever to believe that Pāṇini considered imposing meanings on them. Pāṇinīyas, however, do envisage imposing meanings on absolutely redundant affixes, although they recognize that these elements are not truly meaningful (see sections 11. 1. 6-11. 3). Accordingly, they include both *atyantasvārthika* and *dyotaka* affixes in the class of *svārthika* affixes, relative to which they allow the *paribhāṣā anirdiṣṭārthāḥ* ... to apply. Finally the evidence presented thus far suffices to show that Pāṇinīyas do not differ in the way they interpret this *paribhāṣā*. In particular, they agree that *svārthe* refers to the meaning proper to an item with which a *svārthika* affix is used.²²²

222. A. Wezler, 'Studien zu Patañjalis Mahābhāṣya I: Der Term *svārtha* und *Paribhāṣā CXIII*', Festschrift Thieme (*StII* 5/6, 1980), pp. 279-309 is

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11. 6. This very agreement is interesting, since the statement अनिर्दिष्टार्थाः प्रत्ययाः स्वार्थे in which *svārthe* is used would seem, at first blush, to presuppose that *svārthika* affixes have meanings of their own. It is therefore worthwhile to give some time to a consideration of the term *svārtha*.

11. 6.1 . It is well known from statements of lexicographers and from textual usage that the term *sva* has a group of related meanings or, to put it differently, that there are several related terms *sva*. There are two broad groups : *sva* equivalent to *ātman* 'self' and *sva* 'related to ... itself, pertaining to ... itself, proper to ... itself, own', equivalent to *ātmīya*.²²³ Let us speak of *sva*₁ and *sva*₂. Now, *ātmīya*, equivalent to *sva*₂, is a derivate formed with the *taddhita* affix *cha*²²⁴ according to

(152) A 4. 2. 114 : वृद्धाच्छः ।

(153) A 4. 3. 120 : तस्मैदम् ।

The latter is of the same type as (117) A 4. 1. 91 (section 8. 5) : Affixes specified in other rules optionally follow padas which are values of *tasya* to form derivatives meaning 'Y related to X, Y of X'. By (152) A 4. 2. 114, *cha* occurs after a pada with a nominal base of the *vṛddha* class.²²⁵ The first vowel of *ātman* is the *vṛddhi* vowel *ā*, so that this is a *vṛddha* base.²²⁶ Thus *ātmīya* is derived with *cha* after a pada of the type *ātman-as*, with a

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able to conclude that later Pāṇinīyas differ from Patañjali and Kātyāyana only because he fails to consider the crucial passage from the Mahābhāṣya where Patañjali explicitly says affixes such as the *ka* of *avika* do not convey anything (see section 11. 1. 7 with note 193).

223. It is not necessary to discuss details concerning grammatical and gender features that further distinguish subgroups of meanings. Suffice it to refer to AK 3. 3. 212 : स्वो ज्ञातावात्मनि स्वं त्रिष्वात्मीये स्वोऽस्त्रियां धने ।

224. The *ch* of *cha* is replaced by *īy* (A 7. 1. 2, note 85).

225. Under meaning conditions that are residual with respect to those given before (A 4. 2. 92 : शेषे ।).

226. A 1. 1. 73 : वृद्धिर्यस्याचामादिस्तद् वृद्धम् ।

sixth-triplet ending, and since the affixation is optional (116) A 4. 1. 82, forms of *ātmiya* alternate with genitive forms of *ātman*. Such genitives can be used to express various relations (see section 10. 4 with note 146): *ātmiya* and equivalent genitive forms simply mean 'related to ... itself'. The same is true of *sva₂* synonymous with *ātmiya*.²²⁷

In accordance with the above, a compound *svārtha* is immediately susceptible of two interpretations : as a karmadhārya compound²²⁸ that contains *sva₂* coreferential with *artha* or as a genitive tatpuruṣa compound²²⁹ with *sva₁*. Under the first interpretation, a form स्वार्थः is equivalent to स्वोऽर्थः (= आत्मीयोऽर्थः); under the second interpretation, स्वार्थः is equivalent to स्वस्यार्थः (= आत्मनोऽर्थः). Under both interpretations, however, the meaning of such a compound is 'a meaning related to X itself, a meaning that pertains to X itself, X's own meaning.'

Now, there are instances of *sva₁* used independently. For example, *svaiḥ*, *svasmāt*, *svena* are used in paraphrases of compound with *sva-*, as in the following :

RV. 1. 168. 4a : अव स्वयुक्ता दिव आ वृथा ययुः

Sāyaṇa : एते मरुतः स्वयुक्ताः स्वैर्युक्ताः परस्परं संयुक्ताः ...

RV. 1. 168. 2a : वृत्रासो न ये स्वजाः स्वतवसः

Sāyaṇa : ... स्वजाः स्वयमेव स्वस्मात् वा जायमानाः ...

VS 10. 19ab : प्र पर्वतस्य वृषभस्य पृष्ठाबावश्चरन्ति स्वसिचं हयानः

Mahidhara : ... स्वसिचः स्वेनैवात्मनैव सिञ्चन्ति विश्वमभिषिञ्चन्ति स्वसिचः ...

227. I have proceeded above in a manner with which Pāṇiṇiyas would feel at home, but there is nothing here to surprise a western scholar. It is usual to recognize *sva* 'self', as in *svākrta*, and a possessive pronoun *sva*; see, for example, Whitney, *Sanskrit Grammar*, sections 513b, 516e, and Wackernagel, *Altindische Grammatik* III. 479-480, 493.

228. A 2. 1. 57 (note 131), 1. 2. 42 : तत्पुरुषः समानाधिकरणः कर्मधारयः ।

229. A 2. 2. 8 : षष्ठी ।

But it is well known that, although *sva*₁ appears in early Sanskrit as the first member of a compound, it is not used independently at this stage of the language.²³⁰ There is reason for considering that this is true also of the language varieties used by Pāṇini, Kātyāyana and Patañjali. For example, Pāṇini uses *sva*₂ construed with *rūpa* and also *sva* 'property, wealth',²³¹ but there is no evidence in the Aṣṭādhyāyī to indicate that *sva*₁ was used independently in Pāṇini's language. The same can be said for Kātyāyana's usage,²³² although the available evidence is slim. For Patañjali's use of *sva*, however, there is ample evidence, and, so far as I can tell, he does not use *sva*₁ independently. Typical of Patañjali's usage is स्वस्यां मातरि स्वस्मिन्पितरि 'towards one's own mother and toward one's father'.²³³ The evidence thus speaks for saying that Kātyāyana and Patañjali use a karmadhārya compound *svārtha*, with *sva*₂, not a tatpuruṣa with *sva*₁. For a genitive tatpuruṣa would alternate with analytic strings containing genitive forms of *sva*₁, which, as noted, could not be used in Kātyāyana's and Patañjali's speech.

Of course, Pāṇini knows of compounds with *sva*₁. These are to be considered obligatory compounds (*nityasamāsa*) that do not alternate with equivalent strings containing forms of *sva*₁. Two examples will suffice. Pāṇini uses *yathāsva* to give the sense in which the ready-made derivate *yathāyatha* occurs.²³⁴ *Yathāsva* is an avyayībhāva compound derived by a sūtra.²³⁵ which serves to form obligatory compounds. Thus, even when *yathāsva* means 'as is proper to each individual himself', so that it is derived with *sva*₁, the compound does not alternate with a string containing a form of *sva*₁. Pāṇini of course also knows of Vedic compounds like *svāja*. This particular compound is

230. See, for example, Wackernagel, *Altindische Grammatik* III. 479.

231. 1. 1. 68 : स्वं रूपं शब्दस्याशब्दसंज्ञा । 6. 2. 17 : स्वं स्वामिनि ।

232. E. g., A 5. 1. 119 vt. 6 : ... स्वेन भावेन ...

233. Bh. I. 182. 10; cf. स्वस्यां मातरि स्वस्मिन्वा पितरि (Bh. I. 62. 23, II. 27. 15).

234. A 8. 1. 14 : यथास्वे यथायथम् ।

235. A 2. 1. 5 : अव्ययं विभक्तिसमीपसमृद्धिवृद्धयर्थाभावात्प्रासप्रतिशब्दप्रादुर्भाव-
पश्चाच्चानुपूर्व्ययौगपद्यसादृश्यसंपत्तिसाकल्यान्तवचनेषु ।

derived by introducing the suffix *Da* after *jan* if the verb is construed with certain cooccurring terms, with which *ja* (< *jan-a*) forms an obligatory compound.²³⁶

In sum, *svārtha* as used in early Sanskrit, including the speech of Kātyāyana and Patañjali, is properly interpreted as a karmadhāraya compound formed with *sva*₂. This does not, of course, require that Kātyāyana or Patañjali use *svārtha* in precisely the same sense in every context where they do use this term. In fact, they do not. It will be useful, therefore, briefly to consider some additional passages from the Mahābhāṣya to see more precisely what Kātyāyana and Patañjali mean by *svārtha*.

11. 6. 2. Rules under the heading

(154) A 8. 1. 1 : सर्वस्य द्वे ।

give conditions under which a whole word is iterated. Two rules of this section are :

(155) A 8. 1. 4 : नित्यवीप्सयोः ।

(156) A 8. 1. 12 : प्रकारे गुणवचनस्य ।

According to the first, doubling applies if a speaker wishes to convey that something is constantly repeated or that each and every thing of which he speaks is connected with a given property or action; e. g., पचति पचति । 'He keeps on cooking', ग्रामो ग्रामो रमणीयः । 'Every single village is pleasant', पुरुषः पुरुषो निधनमुपैति । 'Every man dies'. According to (156) A 8. 1. 12, an adjectival term is doubled if it is used of something that only sort of

236. A 3. 2. 101 : अन्येष्वपि दृश्यते । The terms referred to by the locative *anyesu* are upapadas (A 3. 1. 92, note 159), and by A 2. 2. 19 : उपपदमतिङ् । an upapada that does not terminate in a verb ending obligatorily forms a compound with a related term. According to A 2. 1. 32 : कर्तृकरणे कृता बहुलम् an instrumental pada denoting an agent or an instrument compounds variously (*bahulam*) with a related term that contains a *krt* affix. This allows for an obligatory compound such as *svāyukta* or *svakṛta* 'produced of itself' (e. g., SBr. 7. 2. 1. 8). Pāṇini uses *bahulam* also in A 2. 1. 57 (note 131) : A pada denoting a qualifier

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possesses a given quality; e. g., पटुपटु: 'sort of sharp'.²³⁷ In his fourth vārttika on (156) A 8. 1. 12,²³⁸ Kātyāyana proposes one should also say that a word is doubled if it is used with reference to nothing but its own meaning, there is more than one such thing concerned, and it is limited as being only such and such in number. For example,

(w) अस्मात्कार्षापणादिहभवद्भ्यां माषं माषं देहि ।

'Give one and only one māṣa from this kārṣāpaṇa to each of these two men'. A person using (w) wants only two of the sixteen māṣas that make up a full kārṣāpaṇa of gold to be given to the two gentlemen in question, but someone who uses

(x) इमं कार्षापणमिहभवद्भ्यां माषं माषं देहि ।

'Give this kārṣāpaṇa to these two men one māṣa at a time' wants the men to be given all sixteen māṣas: (155) A 8. 1. 4 can account for the iteration in (x), since the rule provides for doubling when *vīpsā* is involved, that is, when a speaker wants to convey that a property or action fully covers what he is speaking of, so that doubling applies when one says that something as a whole is concerned.²³⁹ Thus, a person who, reacting to (x), gives the māṣas to the two men, need not subsequently ask what he is to do with the remaining māṣas, but one who responds to (w) by giving two māṣas to the men can then properly ask what

(Continued from the last page)

compounds variously with a related pada denoting a qualificand. This accounts for an obligatory compound *svastic*, formed from a nominative pada with *sva*₁ and a related pada containing the agentive derivative *sic*, with the *kṛt* suffix *KoIP* (A 3. 2. 76 : क्तिप् च 1).

237. In accordance with A 8. 1. 11 : कर्मधारयवदुत्तरेषु ।, a sequence of padas gotten by (156) A 8. 1. 12 is treated as though it were a Karmadhāraya compound (A 1. 2. 42, note 228), so that a nominal ending included in this is deleted (A 2. 4. 71, note 125).

238. A 8. 1. 12 vt. 4 : स्वार्थेऽवधार्यमाणेऽनेकस्मिन् ।

239. Bh. III, 365. 4-5 : कः पुनः वीप्सार्थः । अनवयवाभिधानं वीप्सार्थः । अनवयवेन द्रव्याणामभिधानमेव वीप्सार्थः ।

he is to do with the remainder of the *kārsāpaṇa*.²⁴⁰ The doubling envisioned in *vārttika* 4 to (156) A 8. 1. 12 concerns instances where an action does not apply to all the things one refers to, so that (155) A 8. 1. 4 does not come into play. For this reason, Kātyāyana specifically says *svārthe*. As the Kāśikā puts it, this doubling applies when the meaning of a word itself is signified, not *vipsā*.²⁴¹

11. 6. 3. The Mahābhāṣya on Aṣṭādhyāyī 2. 1. 1²⁴² takes up two views about compounds and derivatives with *taddhita* affixes. Some maintain that, although forms of such derivatives are indeed equivalent to analytic expressions, they are nevertheless absolutely independent of these and not derived from strings as alternatives to analytic expressions. For example, राजपुरुषः and the phrase राजः पुरुषः are equivalent, as are औपगवः and उपगोरपत्यम्. Under the view in question, however, *rājapuruṣa* is not considered to derive from a string with a genitive form of *rājan*, and *aupagava* is not derived with a suffix added to a genitive form of *upagu*. Others do accept such derivation. Now, the padas which make up analytic strings are independently meaningful, although their meanings are clearly related. On the other hand, *rājapuruṣa* and *aupagava* do not contain words with independent meanings. It is these derivatives as units that are meaningful. On the assumption that such derivatives are obtained from strings, one can speak of the meanings of component words becoming one, being fused into a single meaning,²⁴³ since items such as *rāja-*

240. Bh. III, 369, 15. 19 : किं पुनः कारणं न सिध्यति । अनवयवाभिधानं वीप्सार्थे इत्युच्यतेऽवयवाभिधानं चात्र गम्यते । आतश्चावयवाभिधानम् । यो ह्युच्यतेऽस्मात्कार्षापणादिह-भवद्भ्यां माषं माषं देहीति माषं माषमसौ दत्त्वा शेषं पृच्छति किमनेन क्रियतामिति । यः पुनरुच्यत इमं कार्षापणमिहभवद्भ्यां माषं माषं देहीति माषं माषमसौ दत्त्वा तूष्णीमास्ते ।

241. Kāś. 8. 1. 12 : स्वार्थे एतद् द्विवचनम् न वीप्सायाम् ।

242. The present discussion does not crucially depend on whether A 2. 1. 1 is a general metarule or not; see section 13. 3.

243. A 2. 1. 1 vt. 1 : पृथगर्थानामेकार्थीभावः समर्थवचनम् । Bh. I, 361, 27-362, 1 : पृथगर्थानां पदानामेकार्थीभावः समर्थमित्युच्यते । क पुनः पृथगर्थानि कैकार्थानि । वाक्ये पृथगर्थानि । राजः पुरुष इति । समासे पुनरेकार्थानि । राजपुरुष इति ।

puruṣa and *aupagava* are single entities with meanings of their own. Indeed, we are told, grammarians who do provide for such derivation and for the concomitant meaning unification say this consists in letting a term signify the meaning of another.²⁴⁴ There are, moreover, two alternative positions considered under this general view :

(A) The formation of a derivate involves words giving up their meanings.

(B) The formation of a derivate does not involve words giving up their meanings.²⁴⁵

Objections are leveled against both positions. Consider the sentences

(y) राजपुरुषमानय । ‘Bring the king’s servant.’

(z) औपगवमानय । ‘Bring Upagu’s descendant.’

Suppose that the terms *rājan* and *upagu* that enter into the derivatives *rājapuruṣa* and *aupagava* absolutely gave up their meanings so as to give a single meaning for each of the derivatives. Under this absolute version of (A), one would have to admit that in response to (y) and (z) someone could bring any man at all and any offspring at all, since the meanings ‘king’ and ‘Upagu’ proper to *rājan* and *upagu* are given up. Under an absolute version of (B), on the other hand, the claim is made that one cannot properly get a singular ending like *am* after *rājapuruṣa*, *aupagava*. For now the components *rājan*, *puruṣa* of *rājapuruṣa* and *upagu*, *aṇ* of *aupagava* retain their separate meanings, so that two referents are involved in each case. Consequently, one would now allow only dual endings to occur with such derivatives,

244. Bh. I. 364, 6 : अथ ये वृत्तिं वर्तयन्ति किं त आहुः । परार्थाभिधानं वृत्तिरित्याहुः ।

245. Bh. I. 364, 6-7 : अथ तेषामेवं ब्रुवतां किं जहत्स्वार्था वृत्तिर्भवत्याहोस्विद-जहत्स्वार्था । A compound formation is qualified as *jahatsvārthā* obviously because padas that enter into this are considered to give up therein the meanings they have as their own in utterances; e. g., Pr. II. 518 : जहति पदानि स्वार्थं यस्यां सा जहत्स्वार्था ।

just as the compound *plakṣanyagrodha* 'Plakṣa and Nyagrodha trees' takes dual endings.²⁴⁶ These objections are countered with various arguments, of which we need consider only one. Position (A) is defended as conforming to norms, and a parallel from behavior in real life is cited to illustrate how this is proper. A man who is engaged in work for another gives up his own work. For example, if a carpenter goes to work for a king and is assigned the job of being a messenger, he gives up his own work as carpenter. Similarly, if *rājan* is used in a derivate *rājapuruṣa* to signify a man, it is proper that it give up its own meaning.²⁴⁷ Nor is (A) really liable to the objection leveled against it. Though a word does give up its meaning in a derivate, it does not do so completely. It gives up only that aspect of its meaning that conflicts with another, and this too has a parallel from life. A carpenter who goes to work for a king gives up his work as a carpenter if it conflicts with his new duties, but he does not give up hiccupping, laughing, and scratching.²⁴⁸ Similarly, *rājapuruṣa* denotes a man qualified as serving a king, and a king's being a qualifier relative to the man in question does not conflict with the meaning of *rājapuruṣa*, so that *rājan* does not give up this aspect of its meaning.²⁴⁹

11. 6. 4. *Svārtha* in *jahatsvārthā* and *ajahatsvārthā* (section 11. 6. 3) is used of the meaning that pertains to a word (see

246. Bh. I. 364. 7-10 : यदि जहत्स्वार्था वृत्ति राजपुरुषमानयेत्युक्ते पुरुषमात्रस्यानयनं प्राप्नोति औपगवमानयेत्युक्तेऽपत्यमात्रस्य । अथाजहत्स्वार्था वृत्तिरुभयोर्विद्यमानस्वार्थयोर्द्वयोर्द्विवचनमिति द्विवचनं प्राप्नोति । Pr. II. 518 : द्विवचनं प्राप्नोतीति । प्लक्षन्यग्रोधाविति यथा ।

247. Bh. I. 364. 10-13 : का पुनर्वृत्तिरन्याय्या । जहत्स्वार्था । युक्तं पुनर्यज्जहत्स्वार्था नाम वृत्तिः स्यात् । बाढं युक्तम् । एवं हि दृश्यते लोके । पुरुषोऽयं परकर्मणि प्रवर्तमानः स्वं कर्म जहाति । तद्यथा । तक्षा राजकर्मणि वर्तमानः स्वं कर्म जहाति । एवं युक्तं यद्राजा पुरुषार्थे वर्तमानः स्वमर्थं जह्यादुपगुश्रापत्यार्थे वर्तमानः स्वमर्थं जह्यात् ।

248. Bh. I. 364. 13-17 : ननु चोक्तं राजपुरुषमानयेत्युक्ते पुरुषमात्रस्यानयनं प्राप्नोति औपगवमानयेत्युक्तेऽपत्यमात्रस्येति । नैष दोषः । जहदप्यसौ स्वार्थं नात्यन्ताय जहाति । यः परार्थविरोधी स्वार्थस्तं जहाति । तद्यथा । तक्षा राजकर्मणि प्रवर्तमानः स्वं तक्षकर्म जहाति न हिक्वितहसितकण्डूयितानि ।

249. Bh. I. 364. 17 : न चायमर्थः परार्थविरोधी विशेषणं नाम तस्मान्न हास्यति ।

note 245), so that there is an obvious similarity between this and *svārtha* as used in *vārttika* 4 on (156) A 8. 1. 12 (section 11. 6. 2). There is also a slight difference between the two. For when Patañjali says a word like *rājan* does not completely give up its *svārtha* when it occurs in a derivate such as *rājapuruṣa*, he uses *svārtha* with reference not merely to the lexical meaning of a word but also to a function this serves, whether it is a qualifier or a qualificand. The term *svārtha* is also used with reference to something more restricted than the general lexical meaning of a word.

(157) A 5. 3. 76 : अनुकम्पायाम् ।

is a *taddhita* affixation rule similar to (110) A 5. 3. 74 (section 8. 2) : It provides that *ka* follows a nominal whose meaning is qualified as an object of compassion; e. g., *putraka* 'poor boy'. A question arises concerning derivatives with *ka* from bases that denote things possessed of the qualifications given in the rules which introduce this suffix. The Mahābhāṣya begins its discussion of (110) A 5. 3. 74 with this problem : *ka* undesiredly does not obtain after *kutsita* and *anukampita*, so that one cannot account for *kutsitaka* and *anukampitaka*, since the meaning associated with the affix is already signified by the base with which it is supposed to occur.²⁵⁰ This objection is first met by suggesting that *kutsitaka* has *ka* by (157) A 5. 3. 76 and *anukampitaka* takes *ka* by (110) A 5. 3. 74.²⁵¹ There is another possibility, however, and the Bhāṣya goes on to quote a śloka-vārttika²⁵² that shows how *kutsitaka* and *anukampitaka*, respectively, can properly have *ka* by (110) A 5. 3. 74 and (157) A 5. 3. 76. According to this śloka-vārttika, a term signifies a series of related meanings

250. Bh. II. 424. 2-3 : इह कुत्सितकः अनुकम्पितक इति स्वशब्देनोक्तत्वात्तस्यार्थस्य प्रत्ययो न प्राप्नोति ।

251. Bh. II. 424. 4 : नैष दोषः । कुत्सितस्यानुकम्पायां भविष्यत्यनुकम्पितस्य कुत्सायाम् ।

252. Bh. II. 424. 3-7 : अथवा । स्वार्थमभिधाय शब्दो निरपेक्षो द्रव्यमाह समवेतम् । समवेतस्य च वचने लिङ्गं वचनं विभक्तिं च ॥ अभिधाय तान्विशेषानपेक्षमाणश्च कृत्स्नमात्मानम् । प्रियकुत्सनादिषु पुनः प्रवर्ततेऽसौ विभक्त्यन्तः ॥

in order.²⁵³ First, it signifies a *svārtha*, then a substance related with the *svārtha*.²⁵⁴ Once a thing related with the *svārtha* is signified, the term conveys a gender, a number, and a *kāraka*.²⁵⁵ After it has signified these last three qualifications, the term is then used, with an ending, to convey senses such as endearment or scorn with respect to the five meanings noted.²⁵⁶ To see how this accounts for *kutsitaka* having *ka* by (110) A 5: 3. 74, consider the following. The terms *ghaṭa* and *nīla* respectively denote a water pot and something blue. Any referent of the former has the property of being a pot, and any referent of the latter has the property blue. Similarly, *kutsita* denotes something that is an object of scorn, and every referent of this has the property of being scorned. An individual held in contempt may properly be an object of scorn, worthy of this because of some valid reason like doing things that are forbidden, but he may also be reviled wrongly. Of itself, *kutsita* denotes anything that is an object of scorn. It is used of scorn that characterizes such

253. Of course, a term is uttered once and all the related meanings are thereby conveyed, so that the order in question can only be that in which one understands things. Cf. Vṛtti on VP 1. 26 (VPb 74. 6–75. 1) : स्वार्थमभिधाय शब्दो निरपेक्षो द्रव्यमाह समवेतम् इति प्रतिपत्तिक्रमनियमानुगममात्रं क्रियते । न हि शब्दस्य क्रमवती विरम्य विरम्य स्वार्थादिषु वृत्तिः संभवति । सकृदुच्चारणात् । अर्थेन च नित्यमवियोगात् ।

254. Kaiyaṭa notes (Pr. IV. 233) that by *dravya* 'substance, thing' is meant something which can be referred to by a pronominal *idam* 'this', *tad* 'that' : द्रव्यशब्देनेदंतदिति परामर्शयोग्यं वस्त्वभिधीयते । Cf. VP 3. 4. 3 : वस्तूपलक्षणं यत्र सर्वनाम प्रयुज्यते । द्रव्यमित्युच्यते सोऽर्थो भेदत्वेन विवक्षितः ॥

255. As commentators note (e. g., Pr. IV. 234), *vibhaktim* in the *Sloka-vārttika* must refer to *kāraṇas*, not to endings. This is obvious from the use of *āha* 'signifies' used in the *Sloka-vārttika* : a word such as *kutsita* does not signify an ending.

256. In his introduction to VP 3. 14. 1 (VPb. 149. 16–17), Helārāja brings this forcefully into the context of the established view that the *taddhita* affixes in question are cosignifiers (cf. note 103) : स्वार्थादिपञ्चकाभिधायिनः प्रातिपदिकात् स्वार्थादिनिमित्तकृत्सादियोतनाय कनादयः प्रत्यया इति प्रकृत्यर्थविशेषणपक्षः । Other details concerning the interpretation of the *Sloka-vārttika* Patañjali cites cannot be dealt with here, but they are not vital to the present discussion.

an individual, but it does not convey whether this is justified. The affix *ka* after *kutsita*, then, serves to let a specific meaning be understood : the individual in question is wrongly reviled, so that the scorn attributed to him is itself an object of scorn.²⁵⁷ Now, since the *śloka-vārttika* cited in the *Bhāṣya* explicitly distinguishes between a *svārtha* and a substance which any terms such as *kutsita* can denote, *svārtha* here must be used with reference to what is called the *pravyūttinimitta* (cause for occurring) of a term, a property that characterizes any referent.²⁵⁸ As Kaiyaṭa remarks, *svā* of *svārtha* means 'pertaining to ... itself', and *artha* is used here of whatever a term signifies. The *svārtha* of various terms is of different sorts. Thus, the *svārtha* of *go* 'cow, ox' is the generic property that characterizes all bovines; the *svārtha* of *śukla* 'white thing' is the quality found in all white things, whiteness; the *svārtha* of *pācaka* 'one who cooks' is the property of being agent of cooking; the compound *rājapuruṣa* refers to a man who bears a relation of servant to a king, and the *svārtha* of this term is such a relation.²⁵⁹

11. 6. 5. The passages discussed in sections 11. 6. 2–11. 6. 4 concern *svārtha* used of meanings that pertain to nominals, but, the term is also used with reference to what verbs signify. Now, the meaning of a verb can be viewed from two angles. It can be considered in progress, as something that is carried out in time, and in the abstract, as a finished entity. Pāṇini and Pāṇinīyas use *kriyā* and *bhāva* for the former, *bhāva* for the latter.²⁶⁰ In

(158) A 3. 3. 18 : भावे ।

Pāṇini provides that the affix *GHañ* follows a verb when an act in the abstract is to be signified. For example, the base *pac* in

257. VP 3. 14. 4 : कुत्सितत्वेन कुत्स्यो वा न सम्यग्वापि कुत्सितः ।

स्वशब्दाभिहिते केन विशिष्टोऽर्थः प्रतीयते ॥

258. Ud. IV, 235 : स्वार्थः प्रवृत्तिनिमित्तम् ।

259. Pr. IV, 233 : स्वशब्दोऽत्रात्मीयवचनोऽर्थशब्दोऽभिधेयवचनः । स्वोऽर्थः स्वार्थः । स चानेकप्रकारो जातिगुणक्रियासंबन्धस्वरूपलक्षणः । गौः शुक्रः पाचको राजपुरुषो दित्येति । See also, for example, Nyāsa, PM I, 526–527.

260. See IJ 21 ; 129–133 (1979),

verb forms is used to signify cooking as an action that is carried out, but *pāka*, with *GHaÑ*, denotes cooking in the abstract. Accordingly, Pāṇinīyas speak of an 'internal' (*ābhyantara*) and an 'external' (*bāhya*) *bhāva*, signified respectively by a verbal base like *pac* and an affix like *GHaÑ*. This distinction comes up in the discussion of

(159) A 3. 3. 19 : अकर्तरि च कारके संज्ञायाम् ।

which provides that *GHaÑ* follows a verb if a direct participant in an action is to be signified other than an agent, on condition that the entity referred to is not such a participant in general but a particular individual which the derivative denotes. For example, *prāsa* refers in particular to a lance, not to any object hurled. In his first *vārttika* on (159) A 3. 3. 19,²⁶¹ Kātyāyana says the rule includes *kārake*, thus specifying that *GHaÑ* occurs when a direct participant in an act is to be signified, because if a meaning is not specified for an affix, one recognises that this is introduced *svārthe*. Patañjali explains: Affixes whose meanings are not specifically taught occur *svārthe*, as do *saN* by (134) A 3. 1. 5 and *kaN* by (125) A 5. 4. 29 (sections 11. 1, 10. 1). If (159) A 3. 3. 19 did not specify that *GHaÑ* occurs when a participant in an act is to be signified, by including *kārake*, this and affixes introduced by subsequent rules would occur *svārthe*. *Kārake* is stated in order that these affixes not occur *svārthe*.²⁶² At first, an attempt is made to show that this is not a reason requiring *kārake* in the sūtra. Since *GHaÑ* is allowed to occur *svārthe* by (158) A 3. 3. 18, the claim is made, even if *kārake* were not included in (159) A 3. 3. 19, *GHaÑ* would not occur *svārthe* by this sūtra.²⁶³ Nevertheless the reason first given for using *kārake* in this rule is subsequently reiterated, and the argument against it is shown to be unjustified. It is true that *GHaÑ* is introduced

261. A 3. 3. 19 vt. 1 : कारकग्रहणमनादेशे स्वार्थविज्ञानात् ।

262. Bh. II. 145. 7-10 : कारकग्रहणं क्रियतेऽनादेशे स्वार्थविज्ञानात् । अनिर्दिष्टार्थाः प्रत्ययाः स्वार्थं भवन्तीति । तद्यथा । गुतिज्जिह्वः सन् यावादिभ्यः क्विति । एवमिमेऽपि प्रत्ययाः स्वार्थं स्युः । स्वार्थं मा भूवन्कारके यथा स्युरित्येवमर्थमिदमुच्यते ।

263. Bh. II. 145. 10 : नैतदस्ति प्रयोजनम् । विहितः प्रत्ययः स्वार्थं । भावे षञिति ।

by (158) A 3. 3. 18 on condition that *bhāva* is to be signified, but this is the external *bhāva* distinct from the meaning of a verbal base, so that the affix is not introduced *svārthe* by this sūtra. If *kāraṇe* were not included in (159) A 3. 3. 19, *GHaÑ* would now occur in the meaning of a verb, an internal *bhāva*, by this sūtra.²⁶⁴

As Patañjali's exposition makes pellucid, the argument proposed against the reason given in Kātyāyana's first vārttika rests on a failure to distinguish between internal and external *bhāva*.²⁶⁵ It assumes that (158) A 3. 3. 18 lets *GHaÑ* occur on condition that an action in process is to be signified, not an action in the abstract, so that (159) A 3. 3. 19 cannot be considered to allow *GHaÑ* under this condition. Kātyāyana, on the other hand, maintains that if (159) A 3. 3. 19 did not include *kāraṇe*, it would indeed allow *GHaÑ* to occur under this condition. In both cases, *svārtha* is used of a meaning proper to a base with which *GHaÑ* occurs.

11. 6. 6. The uses of the karmadhāraya compound *svārtha* can thus be distributed among three related rubrics :

(A) *Svārtha* is used of whatever meaning is proper to an item in question. Thus, पदस्य स्वार्थः refers to a meaning that pertains to a word, which is proper to a word. This expression is equivalent to पदस्यात्मीयोऽर्थः and the referent of *ātman* here is a word referred to by *pada*. This usage is illustrated by vārttika 4 to (156) A 8. 1. 12 and the Bhāṣya thereon (see section

264. Bh. II. 145. 15-17 : तदेव तर्हि प्रयोजनं स्वार्थं मा भूवन्निति । ननु चोक्तं विहितः प्रत्ययः स्वार्थं भावे घञ्जितीति । अन्यः स भावो बाह्यः प्रकृत्यर्थात् । Arguments like the ones considered here are also given in connection with (102) A 3. 4. 67 (vt. 1 : कर्तरि कृद्रचनमनादेशे स्वार्थविज्ञानात्) ; see Bh. II. 177. 9-20. I cannot discuss here other places where Kātyāyana and Patañjali deal with this and related points.

265. Kaiyaṭa (Pr. III. 325) explicitly points this out : विहित इति (Bh. II. 145. 10 [note 263]) भावभेदमवबुध्यमान आह ।

11. 6. 2). In जहत्स्वार्था वृत्तिः and अजहत्स्वार्था वृत्तिः *svārtha* is used in a similar though slightly different manner (see section 11. 6. 3).

(B) In a more specialized sense, *svārtha* is used with reference not to a word's meaning in general but to a property that inheres in every referent of a term. For example, bovinity (*gotva*), which characterizes every referent of *go*, is the *svārtha* of this term. The expression शब्दस्य स्वार्थः is equivalent to शब्दस्यात्मीयोऽर्थः but now *svārtha* designates only one of the meanings that make up the total meaning of the word which *ātman* and *śabda* refer to. An example of *svārtha* used in this way is found in the śloka-vārttika cited in the Mahābhāṣya on (110) A 5. 3. 74 (see section 11. 6. 4).

(C) *Svārtha* is used of a meaning associated with an affix but said properly to belong to the element with which the affix occurs. The expression प्रत्ययस्य स्वार्थः can correctly be paraphrased with प्रत्ययस्यात्मीयोऽर्थः but *ātmiya* here can only mean 'associated with .. itself', not 'proper to ... itself', under the assumption that *ātman* refers to an affix. The term *svārtha* is used in this sense both in the passage considered in section 11. 6. 5 and in connection with affixes that are truly *svārthika* (see sections 8. 1-8. 6, 10. 1-10. 5).

These usages are obviously related. Moreover, in accordance with the formation of *svārtha* (see sections 11. 6. 1), it is licit to suppose that (B) and (C) are specializations of (A). Now, since *svārthika* affixes are connected with meanings that properly pertain to the items with which the affixes occur, *svārtha* of (C) is tantamount to *prakṛtyartha*. Patañjali explicitly says that the *svārtha* associated with *saN* by (134) A 3. 1. 5 (section 11. 1) is a *prakṛtyartha*, meaning proper to a base to which *saN* is added.²⁶⁶ Later Pāṇinīyas such as Helārāja and Nāgeśa

266. Bh. III. 103, 20-22 : ... जुगुप्सते ... इति । अर्थवानेषः । न वै कश्चिदर्थं आदिश्यते । यद्यपि कश्चिदर्थो नादिश्यतेऽनिर्दिष्टार्थाः प्रत्ययाः स्वार्थे भवन्तीत्यन्ततः स्वार्थे भविष्यति । कश्चास्य स्वार्थः । प्रकृत्यर्थः ।

paraphrase *svārtha* accordingly,²⁶⁷ and in consonance with this *svārthika* affixes are said to be called *svārthika* because they occur in meanings that pertain to their *prakṛti*.²⁶⁸ In the case of an *atyantasvārthika* affix, of course, this meaning is simply imposed on an affix.²⁶⁹

12. To conclude, let me emphasize once more major points I have brought out in the course of this discussion (see section 11. 5). Pāṇini presupposes an analysis of words in utterances into components, including affixes. He considers some affixes to signify meanings attributed to them, other affixes to cosignify meanings attributed properly to items which these affixes accompany. He also recognizes affixes that are to be abstracted according to the procedure which leads to dividing words into components but which cannot be considered to signify or cosignify any meanings. Pāṇinīyas too recognize the distinction between signifying and cosignifying affixes, and they too explicitly acknowledge that certain affixes do not truly have any meanings of their own. However, they also entertain the possibility of requiring that all affixes somehow be associated with meanings. Thus, although it is acceptable to see a difference in attitude between Pāṇini and his successors with respect to whether affixes should be required to be meaningful, there is no comparable difference between earlier and later Pāṇinīyas.

267. Helārāja on VP 3. 7. 83 (VPd 299, 5-8) : तुमर्थो हि भावः ... न चान्य-
स्तुमुनोऽर्थो निदिष्ट इत्यनिदिष्टार्थाः स्वार्थे भवन्तीति स्वस्याः प्रकृतेरर्थो भावः सिद्धः ।,
Nāgeśa, PISa 191 : स्वार्थे इत्यस्य स्वीयप्रकृत्यर्थे इत्यर्थः ।

268. E. g., BS'S 1490 : अथ स्वार्थिका इति । स्वीयायाः प्रकृतेरर्थे भवा इत्यर्थः ।

269. Moreover, since the meaning of a derivate like *yāvaka* is precisely the same as that of the base *yāva*, this base is qualified as *svārthika* even with this affix; thus, Śīradēva (Paribhāṣaśaṅgraha 269) : ... यावक इत्यादावुत्पन्नेऽपि कनि प्रकृतिः स्वार्थिकैव ।

LECTURE III

SOME QUESTIONS CONCERNING THE SENTENCE
AND ITS CONSTITUENTS

13. As I noted earlier (section 7.1), Pāṇini accounts for utterances and their components by means of a derivational system in which one begins with semantics and ends with utterances that are actually usable. For example, sentence (c) involves the act of seeing, referred to the past excluding the day on which this utterance is used, and two participants in this act : a doctor and an unspecified person who saw him. The doctor is spoken of here as the immediate object of someone's looking, so that he is assigned to the *karman* category;²⁷⁰ the person who sees the doctor is spoken of as an independent participant in the act, so that he is assigned to the *kartṛ* category.²⁷¹ Affixes are introduced after bases on condition that participants belonging to such categories are to be signified. In the present example, the L-affix *LAN* (see note 70) is introduced to signify a *kartṛ* [(99) A.3.4.69], and the second-triplet ending *am* follows *bhiṣaj* to signify a *karman* [(98) A.2.3.2]. A string such as (c) is termed *vākya* ('utterance, sentence').

13.1. The word *vākya* of course is derived from the verb *vac* 'speak'. In Pāṇini's system, it is formed with the *kṛtya* suffix *NyaT*.²⁷² According to

(160) A 7.3.52 : चजोः कु द्विण्यतोः ।

-c and -j of verbs are replaced by velar stops before affixes marked with *gh* and before *NyaT*, but this is only the general rule, subject to exceptions whereby velar replacement does not take effect in particular cases. One such exception is

270. A 1.4.49 : कर्तुरीप्सिततमं कर्म ।

271. A 1.4.54 : स्वतन्त्रः कर्ता ।

272. A 3.1.124 : ऋहलोण्यैत् । See also note 186.

(161) A 7. 3. 67 : वचो ऽशब्दसंज्ञायाम् ।

which provides that the *-c* of *vac* is not replaced by a velar before *NyaT* unless the derivate in question is a term that names a linguistic unit: *vācya* 'to be said, spoken', without velar substitution, but *vākya* 'utterance, sentence,' with *-k* for *-c*. Since Pāṇini uses *aśābdasaṃjñāyām* in (161) A 7. 3. 67, it is clear he knows that *vākya* is a term (*saṃjñā* 'name') used to designate a certain linguistic unit (*śabda*).

Moreover, Pāṇini uses *vākya* in rules providing for operations on specific parts of utterances. Thus,

(162) A 8. 1. 8 : वाक्यादेरामन्त्रितस्यासूयासंमतिकोप-
कुत्सनभर्त्सनेषु ।

one of the rules of the section headed by (154) A 8. 1. 1 (section 11. 6. 2), provides that a vocative form that is the first pada of a *vākya* is iterated if the utterance in question is used to express a speaker's intolerance of another person's qualities, agreement in honoring another, anger, scorn, or threatening; and

(163) A 8. 2. 82 : वाक्यस्य टेः झुत उदात्तः ।

heads a section of rules which state conditions under which the last vowel of a *vākya*²⁷³ is replaced by a trimoric high-pitched vowel.²⁷⁴ Clearly, Pāṇini assumes also that a *vākya* has recognizable boundaries.

However, nowhere in his *Aṣṭādhyāyī* does Pāṇini introduce *vākya* as a class name by means of a *saṃjñāsūtra*. He does not provide that certain stretches of speech, with stated characteri-

273. The term *ṣi* denotes that part of a unit which begins with its last vowel: A 1. 1. 64 : अचोऽन्त्यादि टि । (163) A 8. 2. 80 states a substitution for a vowel (A 1. 2. 28 : अचश्च) of a *ṣi* in an utterance.

274. Pāṇini again uses *vākya* in A 6. 1. 139 : उपात् प्रति यस्न वैकृतवाक्याध्याहारेषु च ।, as part of the compound *vākyaādhyāhāra*, to give one of the conditions under which *kṛ* receives the augment *ṣUT* before its *k* after the preverb *upa* : if the preverb-verb complex is used of supplying a meaning in an utterance by explicit use of a term.

stics, shall be called *vākya*, in the way that he does provide that other specified elements bear particular class names.²⁷⁵ Now, Pāṇini of course assigns such class names to elements in accordance with operations which require his referring to a set of items. For example, consider again the technical term *pada*. As an element that terminates in a nominal or verbal ending [(87) A 1. 4. 14, section 7. 1], an item called *pada* is a syntactic unit of Pāṇini's system. Since endings are introduced to signify participants such as agents and objects in relation to given acts, *padas* are related syntactic elements in derivations. They are also the accentual units in Pāṇini's system. In accordance with the general rule

(164) A 6. 1. 158 : अनुदात्तं पदमेकवर्जम् ।

a *pada* has only one high-pitched vowel. In certain contexts, however, particular *padas* have no high-pitched vowels at all. The three headings

(165) A 8. 1. 16 : पदस्य ।

(166) A 8. 1. 17 : पदात् ।

(167) A 8. 1. 18 : अनुदात्तं सर्वमपादादौ ।

cover different sections of rules. The first is the broadest heading : subsequent rules²⁷⁶ state operations that apply relative to a *pada*. Within this large section, (166) A 8. 1. 17 heads a subsection of *sūtras* which provide operations for *padas* following other *padas*. And (167) A 8. 1. 18 heads a group of rules within this subsection according to which, under additional conditions stated, the whole of a *pada* that follows another *pada* is low-pitched unless it occurs at the beginning of a verse section. For example, by

275. On this issue, see Pāṇini, *a survey of research*, pp. 223-224, and K. Kunjunni Raja, 'Pāṇini's concept of a sentence', *ALB* 40 : 165-170 (1976), S. D. Laddu, 'The concept of *vākya* according to Kātyāyana and Patañjali', pp. 223-228 of the *Proceedings of the winter institute on ancient Indian theories on sentence meaning* (Pune, 1980).

276. Up to the section headed by A 8. 3. 55 : अपदान्तस्य सूर्यन्यः ।

(168) A 8. 1. 19 : आमन्त्रितस्य च ।

a vocative form has no high-pitched vowel when it follows another pada except when it is the first word of a verse section, and according to

(169) A 8. 1. 28 : तिङ्ङितिङ्ङः ।

a pada with a verb ending has no high-pitched vowel if it follow a pada that does not itself terminate in a verb ending.

Not all the operations that apply to padas and are stated in rules of the sections headed by (165)–(166) A 8. 1. 16–17 are purely accentual. For example,

(170) A 8. 1. 20 : युष्मदस्मदोः षष्ठीचतुर्थीद्वितीयाख्ययोर्वास्नावौ

(111) A 8. 1. 21 : बहुवचनस्य वस्नसौ ।

(112) A 8. 1. 22 : तेमयावेकवचनस्य ।

(113) A 8. 1. 23 : त्वामौ द्वितीयायाः ।

provide that certain low-pitched elements replace padas consisting of *yuṣmad* (2nd person pronoun), *asmad* (1st person pronoun) and nominal endings of the sixth, fourth, and second triplets, if these padas follow other words : padas consisting of *yuṣmad*, *asmad* and dual endings²⁷⁷ are replaced by *vām*, *nau* respectively, but *vas* and *nas* replace padas with plural endings; *te* and *me* substitute for padas with singular endings after *yuṣmad* and *asmad*, unless the endings are those of the second triplet, in which case the padas are replaced by *tvā* and *mā*. Further, some operations pertinent to padas apply whether or not the word in question follows another word. For example, pada-final *-s* is replaced by *-r*, for which *-h* substitutes before voiceless consonants and in prepause position (see section 9 with note 136). Such replacements obviously apply at pada boundaries. The pada in question, moreover, does not have to be a syntactic unit that terminates in a nominal or verbal ending.

277. (170) A 8. 1. 20 does not specify that *vām*, *nau* replace padas with dual endings, but once related rules have taken their specified domains this sūtra does apply as noted.

For operations which regularly apply to final sounds of such syntactic *padas* take effect also before certain elements that are not separate syntactic words; for example, *payahsu* has *payah* before the locative plural ending *su*. Hence, Pāṇini provides that bases followed by such affixes also are assigned the class name *pada*. According to

(174) A 1. 4. 17: स्वादिष्वसर्वनामस्थाने ।

an element is called *pada* if it is followed by an affix of the set that begins with the nominative singular ending *sU*,²⁷⁸ unless the affix in question is an ending of the *sarvanāmasthāna* class.²⁷⁹

Clearly, it is not only necessary to refer in rules to a set of elements called *pada*, with respect to operations that in effect define the class; it is also possible to characterize a *pada* in terms of particular grammatical constituents and contexts. Since Pāṇini does introduce the term *pada* in sūtras such as (87) A 1. 4. 14 and (174) A 1. 4. 17 but does not similarly introduce *vākya* as a class name by any rule of the Aṣṭādhyāyī, we are entitled to conclude that it is not necessary for him to operate with a class of elements called *vākya* characterized in terms of particular grammatical constituents and contexts specified in a *saṃjñāsūtra*. To bring this point out more forcefully, let us consider well known ways suggested for characterizing a *vākya* and the purposes these definitions serve.

13. 2. According to

(175) JS 2. 1. 14. 46: अथैकत्वादेकं वाक्यं साक्षाद्भूतं चेद्विभागे स्यात् ।

there are two defining characteristics of a *vākya*: It is a stretch of speech that serves a single purpose, and it is composed of *padas* that are semantically related so that, if they are split from

278. That is, *sU* of (89) A 4. 1. 2 (section 7. 1) and affixes subsequently provided for in this and following sūtras, to the end of the fifth adhyāya.

279. That is, the ending *Śi* of neuter nominative-accusative plural forms and the endings *sU au Jas am auṛ* of non-neuter forms: A 1. 1. 42-43; शि सर्वनामस्थानम् ।, सुडनपुंसकस्य ।

each other, their meanings are left with a semantic expectancy for the meanings of other constituent padas. Mīmāṃsakas let these characteristics determine that a particular part of a stretch within which several *yajus* formulas are combined is a single *yajus*: This serves a single purpose in that it accompanies a ritual act. For example,

- (aa) TS 1. 1. 4. 2 : देवस्य त्वा सवितुः प्रसवेऽश्विनोर्बाहुभ्यां पूष्णो
हस्ताभ्यामग्नये जुष्टं निर्वपामि ।

is uttered by the Adhvaryu as he pours out rice grains during the Darśapūrṇamāsa.²⁸⁰

In accordance with (115) JS 2. 1. 14. 46, one could say that the pairs

- (bb) अयं दण्डः । ‘Here is a stick’.

- (cc) हरानेन । ‘Carry with this’.

- (dd) ओदनं पच । ‘Cook some rice’.

- (ee) तव भविष्यति । ‘It will be yours’.

constitute two *vākyas*. Each pair serves one purpose: to have someone carry something using a stick that is given to him and to tell someone that he should cook rice which will be his to eat.²⁸¹ Treating the pairs (bb)–(cc) and (dd)–(ee) as single utterances, however, has undesirable consequences in Pāṇini’s derivational system. The imperative *hara* is derived in this system from

280. S’Bh. II. 432–435 : अथ प्रक्षिष्टेषु यजुःषु कथमवगम्यत इयदेकं यजुरिति । यावता पदसमूहेनेज्यते तावान्पदसमूह एकं यजुः । कियता चेज्यते । यावता क्रियाया उपकारः प्रकटयते तावद्वक्तव्यत्वाद्वाक्यमित्युच्यते । तेनाभिधीयते अर्थैकत्वादेकं वाक्यमिति । एतस्माच्चेत्कारणादेकवाक्यता भवति तस्मादेकार्थः पदसमूहो वाक्यम् । यदि च विभज्यमानं साकाङ्क्षं पदं भवति : किमुदाहरणम् । देवस्य त्वा सवितुः प्रसव इति ।

281. Puṇyārāja on VP 2. 3 (VPc 21) : अयं दण्डो हरानेन ओदनं पच तव भविष्यतीत्यादावसमावेशः । मीमांसकवाक्यलक्षणसमाश्रयणेनात्र प्राप्नुवन्ति निघातादयः एक-प्रयोजनत्वात् । For the grammarian’s characterizations of a *vākya* which do not coincide with those of Mīmāṃsakas see section 13. 3.

har-a-hi, with deletion of the ending *hi* after the stem *hara*.²⁸² Even after the ending of *har-a-hi* is deleted, the remaining element *hara* has the status of a pada with a verb ending (A 1. 1. 62, note 136). Consequently, (169) A 8. 1. 28 (section 13. 1) could apply to suppress the high-pitch of the first vowel in *hāra*, since this now directly follows another pada, *daṇḍaḥ*, which contains a nominal ending. But the verb form of (cc) should have a high-pitched vowel. This accentuation obtains if *hara* of (cc) in fact does not directly follow *daṇḍaḥ* (bb) in a single sentence. Similarly, (dd) and (ee) have to be treated as independent of each other. If they were considered a single sentence in which *paca* is followed by a pronominal form, (172) A 8. 1. 22 could apply to replace *yusmad-as* with *te*. There are thus technical reasons for not adopting (175) JS 2. 1. 14. 46 within Pāṇini's system. Moreover, Jaimini's sūtra as applied by Mīmāṃsakas serves no purpose in Pāṇini's derivational machinery: Rules of the Aṣṭādhyāyī serve to derive utterances, not to divide given stretches of speech into sentences.

13. 3. Kātyāyana proposes to state characteristics of a *vākya* in order to account for utterances like (bb) – (ee) (section 13. 2) within a derivational system. His suggestions rest on the assumption that

(176) A 2. 1. 1: समर्थः पदविधिः ।

is applicable throughout the Aṣṭādhyāyī as a general metarule: Any operation provided for in respect of padas applies to padas that are syntactically and semantically related (*samartha*). Now, the pronominal form *anena* of (cc) refers to the stick that *daṇḍaḥ* refers to in (bb), so that the verb of (cc) is semantically linked to the stick referred to in (bb). Consequently, (169) A 8. 1. 28 (section 13. 1) could apply to suppress the high pitch of the verb in (cc). For, in accordance with (176) A 2. 1. 1 as interpreted,

282. A 6. 4. 105 : अतो हेः । *hi* itself is a substitute for *siP*, by A 3. 4. 87 : सेहपिच । Since *hi* has the status of the ending *siP* it replaces (A 1. 1. 56, note 217), *har-a-hi* is a pada by (87) A 1. 4. 14.

this accentual rule now applies to a verbal pada that follows a pada with which it is semantically connected, and *hara* of (cc) meets this condition. Similarly, since the rice referred to by *odanam* of (dd) is semantically connected with the referent of the pronominal in (ee), the referent of this pronominal is thereby connected with the verb of (dd), so that (172) A 8. 1. 22 could apply to give *te* instead of *tava* in (ee).²⁸³ In order to preclude such undesirable consequences, Kātyāyana suggests that rules providing for the suppression of high-pitched vowels in verb forms and for replacing forms of *yusmad*, *asmad* with enclitics should be stated under a heading

(177) समानवाक्ये ।

so that these operations apply to verbal and pronominal padas that follow related padas within the same *vākya*.²⁸⁴ Under the assumption that (bb), (cc), (dd), and (ee) are separate *vākyas*, the verb of (cc) does not, then, lose its high-pitched vowel and the pronominal in (ee) is not enclitic *te*. Of course, as was pointed out in section 13. 2, if a *vākya* is characterized as in (175) JS 2. 1. 14. 46, these unwanted consequences could come about even if (177) headed the section of rules that includes (169) A 8. 1. 28 and (112) A 8. 1. 22. The same undesired results would obtain also if one allowed the pairs (bb)–(cc) and (dd)–(ee) to be treated as single *vākyas* by another criterion: A *vākya* is a complex of items terminating in nominal and verbal

283. Bh. I. 366. 8–11 : निघातः । अयं दण्डो हरानेन । अस्ति दण्डस्य हरतेश्च व्यपेक्षेति कृत्वा निघातः प्राप्नोति । युष्मदस्मदादेशाः । ओदनं पच तव भविष्यति । ओदनं पच मम भविष्यति । अस्त्योदनस्य युष्मदस्मदोश्च व्यपेक्षेति कृत्वा वाम्नावादायः प्राप्नुवन्ति तेषां प्रतिषेधो वक्तव्यः । This is said in the context of A 2.1.1 vt. 5 (तत्र नानाकारकान्निघातयुष्मदस्मदादेशप्रतिषेधः ।), where Kātyāyana proposes that one must state a negation to preclude the undesired results in question. However, Kātyāyana later proposes to solve the problem differently; see below with notes 284, 286–288.

284. A 8.1.18 vt. 5 : समानवाक्ये निघातयुष्मदस्मदादेशाः । The Bhāṣya on this (Bh. III. 373. 11–13) gives (bb)–(dd) as separate sentences (cf. note 283). See also note 288.

endings.²⁸⁵ In effect, Kātyāyana must specify what is to be classed as a *vākya*. He first states that a complex consisting of a finite verb form together with indeclinables, terms that refer to *kāra*kas, and qualifiers is called *vākya*.²⁸⁶ For example,

(ff) उच्चैः पठति । ‘He is reciting loudly’.

(gg) नीचैः पठति । ‘He is reciting softly’.

are *vākyas* made up of the finite verb form *paṭhati* and the indeclinables *uccais*, *nica*is;

(hh) ओदनं मृदुविशदं पचति । ‘He is making cooked rice that is soft and clean’.

has a finite verb form (*pacati*), a term referring to an object (*odanam*), and one signifying qualities of this object;

(ii) सुष्ठु पचति । ‘He cooks well’.

(jj) दुष्ठु पचति । ‘He cooks badly’.

consist of a verb form and terms that signify qualifications of the act in question. There are also utterances that consist simply of verb forms; for example

(kk) ब्रूहि ब्रूहि । ‘keep on saying’.

If one insisted that a verb form has to be accompanied by other terms in a proper *vākya*, such an utterance would undesiredly not be a *vākya*. Hence, Kātyāyana goes on to give an alternative definition: A stretch whose main element is a single verb form is called *vākya*.²⁸⁷ Once one has thus specified what

285. Cf. AK 1.5.2 : तिङ्मुबन्तचयो वाक्यं क्रिया वा कारकान्विता ।

286. A 2.1.1 vt. 9 : आख्यातं सान्वयकारकविशेषणं वाक्यम् । Examples (ff) –(jj) are taken from the Bhāṣya on this vārttika (Bh. I. 367. 11–14). It is not necessary to discuss here details of what Patañjali says concerning the interpretation of this vārttika or an alternative statement. It is noteworthy, however, that Hemacandra incorporates in his grammar a rule according to which a verb form together with qualifiers constitutes a unit called *vākya* : SHS’ 1.1.26 : सविशेषणमाख्यातं वाक्यम् ।

287. A 2.1.1 vt. 10 : एकतिङ् : Bh. I. 367. 17 : एकतिङ् वाक्यसंज्ञं भवतीति वक्तव्यम् । ब्रूहि ब्रूहि । Cf. SV. 1.1.61 : तिङा वाक्यम् ।

shall be referred to as *vākya* and the heading (177) has been established, the undesired consequences that could obtain for (cc) and (ee) are avoided.

Consider now the strings

(ll) नद्यस्तिष्ठति कूले । 'He is standing on the bank of the river'.

(mm) शालीनां त ओदनं ददामि । 'I'll give you cooked rice from śāli'.

The verb form *tiṣṭhati* of (ll) should have no high-pitched vowel, by (169) A 8. 1. 28, and (mm) should have the enclitic *te* (→ *ta*) by (172) A 8. 1. 22. However, the verb and pronominal of these sentences are not semantically and syntactically directly related to the *padas* that precede them. (ll) concerns a bank of a river that plays the role of locus with respect to the act of standing, and *nadyās* refers to a river related to this bank, not to a *kāraka* connected with standing. (mm) concerns two *kāra*kas relative to giving: cooked rice (*odana*) that functions as immediate object and a person, referred to by the pronoun *yusmad*, to whom this is given; the term *śālīnām*, directly linked to *odanam*, refers to particular rice grains from which the cooked rice is made. If (169) A 8. 1. 28 and (172) A 8. 1. 22 are governed by the convention stated in (176) A 2. 1. 1, so that the operations in question apply only to verbal and pronominal terms following *padas* with which they are directly connected, then, these rules cannot serve to derive (ll) and (mm), unless one also has the heading (177) and one has specified, in the ways shown, what speech units are called *vākya*.²⁸⁸ Thus, by saying that a finite verb form with qualifiers constitutes a structure called

288. In A 2. 1. 1 vt. 11, identical with A 8. 1. 18 vt. 5 (see note 284), Kātyāyana proposes that the operations in question be stated under a heading (177). In A 2. 1. 1 vt. 13 (समर्थनिवाते हि समानाधिकरणयुक्तयुक्तेष्वसंख्यानमसमर्थत्वात्), Kātyāyana then gives reasons why one has to assign the class name *vākya* to particular units and also have a heading (177): Letting (176) A 2. 1. 1 govern how (169) A 8. 1. 28, (170)-(173) A 8. 1. 20-23 operate does

(Continued on the next page)

vākya, one includes both direct and indirect qualifiers of verbs and terms that signify *kāraṇas*.²⁸⁹

Kātyāyana's procedure differs from Pāṇini's in several respects. To begin with, there is no heading (177) in the Aṣṭādhyāyī; this is only provided for in vārttikas (see note 284). As I have shown, Kātyāyana claims that the heading (177) is necessary in order to account properly for sentences like (cc) and (ee). By stating what particular complex of items shall be called *vākya*, Kātyāyana claims, one is able to say, that (bb), (cc), (dd), and (ee) are all separate *vākyas*, and by specifying that certain operations apply within a *vākya* one accounts for the accentuation of *hāra* in (cc) and for *tava* instead of *te* in (ee). Now, no one would want to deny that (bb)–(ee) should be described as four separate sentences, that the pairs (bb)–(cc) and (dd)–(ee) are sets of related utterances, that an accented verb is one feature which can characterize the beginning of a sentence, and that enclitic pronominal forms like *te* are not used at the beginning of a sentence. None of this, however, requires one to define a sentence in the ways Kātyāyana suggests. Within a derivational system like Pāṇini's, which begins with semantics, one simply derives (bb)–(ee) separately. The order of padas in such utterances of Sanskrit is not rigidly determined, so that (cc) is one possible string gotten from the related padas *hr-a-hi* (\rightarrow *hara*) and *idam-ā* (\rightarrow *anena*) in Pāṇini's system: If the verbal form precedes the pronominal pada, (169) A 8. 1. 28 does

(Continued from the last page)

not take care of instances where a pada follows a pada with which it is coreferential and where two padas are not directly related, so that one would require an addition to the grammar. I have taken (ll)–(mm) from the Bhāṣya on this vārttika (Bh, I. 368. 7–8), where they are given as examples involving indirect relation; see also Puṇyārāja on VP 2. 3 (VPc 20).

289. Ud. II, 533 : सविशेषणमित्यस्य साक्षात्परम्परया वा यद्विशेषणं तत्सहितमित्यर्थः । तेन नद्यास्तिष्ठति कूले इत्यादौ नद्या इत्यादेः समानवाक्यस्थित्वसिद्धिः । Cf. Tattvapraśāṅgikā on SHS' I. 1. 26 (see note 286) : सदाद्यन्तं पदमाख्यातम् । साक्षात् पारम्पर्येण वा यान्याख्यातविशेषणानि तैः प्रयुज्यमानैरप्रयुज्यमानैर्वा सहितं प्रयुज्यमानमप्रयुज्यमानं वाख्यातं वाक्यसंज्ञं भवति ।

not apply to suppress the high pitch of *hāra*, but if the verb form follows the pronominal this rule does indeed apply. Similarly, (ee) is one of two possible strings gotten from the related padas *bhū-īśya-ti* (\rightarrow *bhaviṣyati*) and *yusmad-as*: If the latter is allowed to follow the verb form, (172) A 8. 1. 22 applies to give *te*, but this rule does not apply if the pronominal pada precedes the verb form. Moreover, a heading (177) is not required to account for utterances such as (ll) and (mm). The problems which this heading is meant to eliminate come up if, in accordance with the view that (176) A 2. 1. 1 is a metarule valid throughout the Aṣṭādhyāyī, one requires that rules under the headings (165)–(166) A 8. 1. 16–17 (section 13. 1) apply to padas following padas with which they are directly related. If, however, one allows these rules to apply simply to padas that follow other padas in derivational strings, whether the items in question are related directly or indirectly, then no problems arise. And in fact there is evidence that Pāṇini does not mean (176) A 2. 1. 1 to establish a convention with respect to all operations concerning padas. According to

(178) A 8. 3. 44: इसुसोः सामर्थ्ये ।

one of the rules in the section headed by (165)–(166) A 8. 1. 16–17, *h* is optionally replaced by *-s* if it derives from *-s* of a segment *-is* or *-us* and occurs before a pada-initial velar or labial, provided that there is a semantic and syntactic relation between the pada in *-ih*, *-uh* and the pada that follows. For example, one has

(nn) सर्पिष्करोति । सर्पिः करोति । ‘He is making butter’.

(oo) तिष्ठतु सर्पिः । ‘Let the butter be’.

(pp) पिब त्वमुदकम् । ‘Drink water’.

If (176) A 2. 1. 1 were indeed valid throughout the Aṣṭādhyāyī, Pāṇini would not have had to specify in (178) A 8. 3. 44 that the operation provided for takes effect if there is a semantic and syntactic relation (*sāmāthyē*) between padas.²⁹⁰

290. (176) A 2. 1. 1 is best considered to apply with respect to sūtras that follow, to the end of second adhyāya.

In (169) A 8. 1. 28, Pāṇini specifies that a pada which terminates in a verb ending has no high-pitched vowel if it follows a pada that has an ending other than a verbal one. It follows that Pāṇini accounts for utterances in which a finite verb form retains a high-pitched vowel by virtue of following another finite verb form, as in

(qq) पचति करोति ²⁹¹

Kātyāyana, on the other hand, claims that stating *atīnaḥ* in (169) A 8. 1. 28 serves no purpose, since the sūtra comes under the suggested heading (177).²⁹² Kātyāyana's argument is of course based on his position that a single *vākya* has one finite verb form (see note 287) but Pāṇini adopts no such restriction.²⁹³

Kātyāyana's characterizations of what constitutes a *vākya* are not only patently intended for quite narrow technical purposes. It is also the case that, taken literally as stated, they fail to include in the class of *vākyas* strings which all would agree should be included in this set. Now, the string (bb) does not contain an overt verb form, but, as Kātyāyana remarks,²⁹⁴ one understands a third-person present form of 'be' in such a string, which then meets the requirement that a *vākya* have a finite verb form.²⁹⁵ There are also strings where, in accordance with the meanings of terms referring to particular *kāraṅkas*, one supplies other verbs. For example, in

291. (qq) is given as an example in Bh. III. 374. 22. It is most simply interpreted as meaning 'He cooks and does' (cf. Pr. V. 327).

292. A 8. 1. 28 vt. 1 : अतिवचनमनर्थकं समानवाक्याधिकारात् ।

293. Cf. VP 2. 447-448 : बहुष्वपि तिङन्तेषु साकाङ्क्षेष्वेकवाक्यता ।

तिङा तिङ्भ्यो निघातस्य पशुदासस्तथार्थवान् ॥

एकतिङ् यस्य वाक्यं तु शास्त्रे नियतलक्षणम् ।

तस्यातिङ्ग्रहणेनार्थो वाक्यभेदान्न विद्यते ॥

Bhoja (Sr. Pra. I. 104) also points out the difference.

294. A 2. 3. 1 vt. 11 : ... अस्ति भवन्तीपरः प्रथमपुरुषोऽप्रयुज्यमानोऽप्यस्ति ।

295. Bh. I. 366. 13-14 : अयं दण्डः । अस्तीति गम्यते । Recall that Hemacandra also does not require that a finite verb form occur overtly in a *vākya* as defined in his grammar (see notes 286, 289),

(rr) यश्च निम्बं परशुना यश्चैनं मधुसर्पिषा ।

यश्चैनं गन्धमाल्याभ्यां सर्वस्य कटुरेन सः ॥

‘The Nimba tree is bitter for anyone : one who (cuts) it with an axe, who (irrigates) it with honey and butter, who (anoints) it with perfume (and honors) it with garlands.’

one understands *chinatti* ‘cuts’ and *siñcati* ‘irrigates’ to be construed with the instrumentals *paraśunā* ‘axe’ and *madhusarpiṣā* ‘honey-butter’ as well as *anulimpati* ‘anoints’ and *pūjayati* ‘honors’ to be construed with *gandhamālyābhyām* ‘perfume and garlands’.²⁹⁶ However, there are also strings without finite verb forms for which it is not proper to supply such forms. For example,

(ss) देवदत्तेन शयितव्यम् । ‘Devadatta should lie down’ contains the gerundive *śayitavyam*, not a finite verb form. To avoid saying that (ss) is not a *vākya*, one could say that in Kātyāyana’s first statement of what constitutes a *vākya* (see note 286) *ākhyātam* ‘form with a verb ending’ is not to be taken literally : This is meant to refer to any form whose principal meaning is an action.²⁹⁷ Even this will not do, however, for an example such as

(tt) ततः कुमुदनाथेन कामिनीगण्डपाण्डुना ।

नेत्रानन्देन चन्द्रेण माहेन्द्री दिगलंकृता ॥

296. I have cited (rr) as given in Puṇyarāja’s commentary on VP 2.314 (VPc 419). Bhoja (Sṛ.Pra. I. 104) cites this with *sarvatra*; in the Kuvalayānanda (p. 57) and in PLM 67, the verse is given with *gandhamālyādyaiḥ*; in addition, manuscripts of the Paramalaghumañjūṣā have *tikṭa eva*.

297. Ud. II. 533 : तत्राख्यातपदेन क्रियाप्रधानं लक्ष्यते । तेन त्वया शयितव्यमित्यादेः संग्रहः । Cf. Śabdamaḥārṇavanyāsa on SHS’ 1.1.26 (see note 286); क्रियोपलक्षणं चैतत् । तेन देवदत्तेन शयितव्यमित्याद्यपि वाक्यं भवति तत्र साधनव्यापारस्य क्रियार्थतया प्रतीतेः ।

‘Then the East was adorned by the moon, that delights the eyes, lord of lotuses (that open with the moon), white as the cheeks of a woman apart from her lover.’²⁹⁸

in which the participial form *alanīkṛtā* ‘adorned’ is coreferential with *māhendri dik* ‘the East’. Yet it would be absurd to say that such a passive sentence is not a *vākya* but that an equivalent string with a finite form *alam akāri* (passive) or *alam akārṣīt* (active) is formally a *vākya*.

One more point concerning how Kātyāyana proposes to characterize the *vākya* set is worth stressing. His statements are formally comparable to those in which Pāṇini assigns the class name *pada* to particular elements. Recall that (87) A 1. 4. 14 (section 7. 1) classes as a *pada* an item that terminates in a nominal or verbal ending and that (174) A 1. 4. 17 (section 13. 1) assigns to the *pada* class bases followed by certain suffixes. In a similar manner, Kātyāyana’s statements concerning *vākya* provide that strings with particular grammatical characteristics shall have the class name *vākya* (see notes 286, 287). Elements called *pada* are associated with particular phonologic operations (see section 3. 1), and the units which are to be called *vākya* by Kātyāyana’s criteria are similarly connected with certain operations. As I have shown here, however, if one characterizes a *vākya* in the way Kātyāyana does problems ensue, and Kātyāyana’s definitions are in any case not necessary to the Aṣṭādhyāyī for the technical purposes they are meant to achieve.

13. 4. In view of the evidence available, then, I consider it proper to conclude that Pāṇini does not introduce *vākya* as a class name comparable to *pada* for two major reasons: He could not characterize the class in question satisfactorily in terms of particular grammatical properties that would pertain to all

298. Mahābhārata 7. 159. 42. Bhoja (Sṛ.Pra. I. 104) cites (tt) as an example of a sentence in which a *kṛdanta* form is used to signify an act instead of a verb form (*kṛdabhihitākhyāta*). The verse is also cited in Kāvyaaprakāśa under 10. 89 (p. 569).

the units which should partake in pertinent operations. And the operations in question are provided for in a satisfactory way in terms of related padas of derivational strings. The fact remains, of course, that Pāṇini uses *vākya*, which he knows to be a term for a linguistic unit (see section 13.1). I consider it plausible to say that Pāṇini simply assumes his students, of whom he indeed assumes earlier studies concerning the language described, are acquainted with a very general characterization of what constitutes a *vākya*: a group of related words expressing a complete thought.²⁹⁹ Moreover, Pāṇini does not have explicitly to introduce *vākya* as a term used with reference to a speech unit thus characterized. For such a unit is a given of his derivational system, which begins with meanings and provides for strings of related padas (see section 13): Such strings meet the criteria for being *vākyas* thus characterized.³⁰⁰

14. By recognizing padas as components of utterances he accounts for through derivation, Pāṇini assumes that sentences are indeed divisible into constituent padas. He does not, however, describe how one goes about analyzing utterances into such constituents, any more than he describes how padas are analyzed into bases and affixes. As others recognize explicitly, nevertheless the same procedure of reasoning from *anvaya* and *vyatireka* which serves to analyze padas into constituents (see section 7.2) serves also to analyze sentence into padas. For example, from

(uu) गामानय । 'Bring the cow.'

(vv) अश्वमानय । 'Bring the horse.'

(ww) गां बध्नान । 'Tether the cow.'

(xx) अश्वं बध्नान । 'Tether the horse.'

299. Thus, for example, Arthaśāstra 2.10.20, Nyāyasūtrabhāṣya on NS 2.1.55 (p. 138): पदसमूहो वाक्यमर्थपरिसमाप्तौ । Cf. Kāś. 8.1.8: एकार्थः पदसमूहो वाक्यम् । (see also S'Bh. on JS 2.1.14.46, cited in note 280).

300. They also meet other criteria for well formed *vākyas*; see section 14.4.4.

one can abstract the constituents *gām*, *aśvam*, *ānaya*,³⁰¹ *badhāna* and attribute certain meanings to them : a cow that is object of an action, a horse that is object of an action, the acts of bringing and tying up, which some one person is commanded to carry out.³⁰² Further analysis using the same procedure allows one divide these into other constituents.

14. 1. Later Pāṇinīyas place considerable emphasis on parallels between the analysis of sentences and padas, in connection with sequences that are not obviously divisible in unambiguous ways. Consider, for example, *bhiṣajam*, *bhiṣajā* on the one hand and *gām*, *aśvam*, *ghaṭena* on the other. The forms *bhiṣajam*, *bhiṣajā* are immediately and unambiguously divisible into a base *bhiṣaj* and endings *am*, *ā*, which recur in terms like *ṛtvijam*, *ṛtvijā*. But *gām*, *aśvam*, *ghaṭena* are not so obviously divisible. In accordance with the type *bhiṣaj-am*, one can say that *aśvam* too has an ending *am*, but a base *aśv* is not obviously to be abstracted from other related forms, such as *aśvas*. Nor is *gām* obviously divisible into an ending *am* and a base.³⁰³ Similarly, it is not immediately evident whether *ghaṭena* should be divided into *ghaṭ* and an ending *ena* or *ghaṭe* and an ending

301. Technically, in Pāṇini's system, *ā naya* is a complex of two padas, since the preverb *ā* is treated as a separate pada, but this is not important for the present discussion.

302. Thus, for example, Bhoja (SṛPra. I. 263) : एवं वाक्येऽपि गामानयेत्युक्ते केनचिच्छब्दः श्रूयते गामिति द्वितीयान्तः आनयेति च लोडन्तः । अर्थोऽपि कश्चिद् गम्यते सास्नादिमान् कर्मत्वमापन्नः आनयेति क्रियार्थत्वविधित्वापन्नः । अथाश्वमानयेत्युक्ते गवार्थो हीयते अश्वार्थ उपजायते आनयनार्थोऽन्वयी । गां बधानेत्युक्ते आनयनार्थो हीयते बन्धनार्थ उपजायते गवार्थोऽन्वयी । Bhartṛhari emphasizes that padas are abstracted in sentences just as bases, affixes, and such are separated out in words : VP. 2. 10 : यथा पदे विभज्यन्ते प्रकृतिप्रत्ययादयः ।

अपोद्धारस्तथा वाक्ये पदानामुपपद्यते ॥

303. Of course, it is possible to posit complexes like *go-am* and to justify positing particular forms as basic. Full details concerning the basic forms Pāṇini posits and why he posits these are given in my work alluded to in note 37.

na.³⁰⁴ To be sure, a student of a grammar such as the *Aṣṭādhyāyī* knows such forms to be divided into grammatical constituents.³⁰⁵ Nevertheless, although Pāṇini does indeed derive *gām*, *aśvam*, *ghaṭena*, and comparable forms from sequences of discrete bases and affixes,³⁰⁶ he also recognizes that the vowels *-ā-*, *-a-*, *-e-* in such forms straddle boundaries between bases and affixes,³⁰⁷ boundaries which are here obliterated. In addition, enclitic forms like *vas* and *nas* are simply unanalyzable units,³⁰⁸ as Pāṇini also recognizes [see (170)–(173) A 8. 1. 20–23, section 13. 1], although he derives them from complexes such as *yuṣmad-ām*, *asmad-ām* because they are equivalent to analyzable terms (*yuṣmākam*, *asmākam*). Moreover, in normal communication among speakers of Sanskrit people of course know what words like *ghaṭena* mean. They use them and understand them without having to learn from any grammar how to analyze them. Consequently, one can

304 VSK 63 : घटेनेत्यादिषु न हि प्रकृत्यादिभिदा स्फुटा ।

वस्नसादाविवेहापि संप्रमोहो हि दृश्यते ॥

VBh. 239 : अयमर्थः । घटेनेत्यत्र घट इति प्रकृतिः घटेनेति प्रत्यय इति वा घटे इति प्रकृतिर्नेति च प्रत्यय इति वात्र नियामकाभाव इति ।

305. VBh. 239 : नन्वत्र टाडसिङ्सामिनात्स्या इत्येव भाष्ये कथितत्वाद् घटेनेत्यादौ नेत्येव प्रत्यय इत्यस्य सुवचत्वात्नोक्तानुपपत्तिर्वैयाकरणैः सुखेन ज्ञातुं शक्यत्वाच्च । It is not necessary to consider here the reasons for which Patañjali suggests, in the *Mahābhāṣya* on A 7.1.12 : टाडसिङ्सामिनात्स्याः ।, that *na* be the replacement for the basic ending *ṭā* (instr. sg.) instead of *ina*, which Pāṇini posits as the substitute for this ending.

306. *go-am* → *gām* (A 6.1.93 : औतोऽमृशसोः ।), *aśva-am* → *aśvam* (A 6.1.107 : अमि पूर्वः ।), *ghaṭa-ā* → *ghaṭ-ina* (A 7.1.12, note 305) → *ghaṭena* [(71) A 6.1.87, section 3.2.6].

307. Rules which serve to give *-ā-* for *-o -a-*, *-ā-* for *-a -a-*, *-e-* for *-a -i-* (note 306) come under the heading of A 6.1.84 (note 11), and by A 6.1.85 : अन्तादिवच्च । the single vowel that substitutes for two contiguous vowels of grammatical elements is treated as the final segment of the first unit and the initial segment of the second; for example, *-ā-* < *-o -a-* in *gām* has the status of the final vowel of the base and the initial vowel of the ending.

308. VBh. 239 (continuing the passage in note 305) : इत्याशयेनाह वस्नसा-विति । बहुवचनस्य वस्नसावित्यतः समुदायस्यैव तद्विधानाच्च तद्विभागो ज्ञातुं शक्यत इत्यर्थः । Cf. *Sphoṭavāda* 10,

rightly say that the true signifying element of communication here is simply *ghaṭena* and such.³⁰⁹

Putative boundaries between bases and endings are not the only ones breached. Word boundaries are similarly breached. For example, although

(yy) हरेव । 'Hari, help !'

(zz) विष्णोव । 'Viṣṇu, help !'

can indeed be analyzed into component words *hare*, *viṣṇo*, and *ava*,³¹⁰ there is no clear-cut boundary in these sentences between the vocative forms and the imperative *ava*.³¹¹ Nevertheless, speakers of Sanskrit need not be grammarians to understand such utterances, so that one can consider these simply units which convey sentential meanings.³¹² And sentences like (uu)-(xx), in which word boundaries are not obliterated, also can be treated as units conveying sentential meanings.

14. 2. It is of course possible to view all sentences as somehow built up of related words and to maintain as a consequence that these constituent words themselves signify meanings which enter into a relational sentence meaning. It is also possible to say that one begins with sentences as whole units of communication, and that these are analyzed into component

309. VBh. 239 : वस्तुतोऽवैयाकरणानां प्रत्येकं तदज्ञानेऽपि समुदाये व्युत्पन्नानां बोध-
दर्शनाद् घटेनेत्यादावप्यनुपपत्तितादवस्थम् । Cf. Sphoṭavāda 10.

310. As in अव हरे ।, अव विष्णो ।, which mean the same as (yy) and (zz) but have a different word order.

311. *hare ava* → *hareva*, *viṣṇo ava* → *viṣṇova* by A 6. 1. 109 (note 55), a sūtra under the heading of A 6. 1. 84 (note 11); see note 307.

312. VSK 64 : हरेवेत्यादि दृष्ट्वा च वाक्यस्फोटं विनिश्चिनु । VBh. 240 : अत्रादिना विष्णोवेत्यादि गृह्यते । अत्र पदयोः स्पष्टमज्ञानेऽपि समुदायव्युत्पत्त्या बोधादावद्वयिकैव समुदाय-
शक्तिरिति भावः । The parallel between items like *ghaṭena* and sentences like (yy)-(zz) is of course not absolute, since one can isolate in the latter words whose order may be reversed (see note 310), but one cannot do the same with components abstracted from terms such as *ghaṭena*.

words.³¹³ Moreover, the two stands need not be considered absolutely irreconcilable. There are also extreme positions under each view which are worth considering.

14. 2. 1. Assume that, as a sentence is a complex of words, a word is to be treated as a complex of sounds,³¹⁴ so that, for example, the word *gauḥ* 'cow, ox' is nothing more than the sounds *g-au-h*,³¹⁵ a group of sounds in a particular order such that a certain meaning is signified.³¹⁶ Under this view, any utterance is ultimately a series of sounds uttered in a particular order. There are no words or sentences qua units that are absolutely distinct from such strings of sounds.³¹⁷ If this reasoning is carried to an extreme, one can end up with a paradox. What we call *padas* are simply sounds, and once pronounced, individual sounds do not persist to combine with sounds subsequently uttered, so that there are no true separate complexes of uttered sounds to which the term *pada* should apply. Moreover, sounds themselves can be broken down into parts, right down to ultimate segments comparable to ultimate atomic

313. VBhS 486-487 : वस्तुतस्तु समुदितार्थे विशिष्टवाक्यस्यैव प्रथमं तदग्रहः । आवापोद्वापाभ्यां परं प्रत्येकं तदग्रह इति बोध्यम् । Sphotavāda 14-15 : एवं घटमानयेत्यादौ संसर्गरूपो वाक्यार्थः समुदायशक्यः । वृद्धव्यवहारात् प्रथमतो विशिष्टे वाक्यार्थत्वग्रहेऽपि आवापोद्वापाभ्यां पदानां पदार्थेषु शक्तिकल्पनाद्वाक्यस्य परिशेषेण संसर्ग एव तत्सिद्धिः । See section 14. 4. 3 on the difficulty of accepting that one first grasps a meaning relation between a whole sentence as a unit and a single qualified sentential meaning.

414. Thus, for example, Bh. I. 77. 17 : ... वर्णसमुदायः पदम् ..., Arthaśāstra 2. 10. 14 : वर्णसंघातः पदम् ।

315. SBh. I. 54 : अथ गौरित्यत्र कः शब्दः । गकारौकारविसर्जनीया इति भगवानुप-
वर्षः ।

316. SBh. I. 35 : पूर्ववर्णजनितसंस्कारसहितोऽन्त्यो वर्णः प्रत्यायकः ...
SIV 5. 10. 69-70 : यावन्तो यादृशा ये च यदर्थप्रतिपादने ।

वर्णाः प्रज्ञातसामर्थ्यास्ते तथैवावबोधकाः ॥

तेषां तु गुणभूतानामर्थप्रत्यायनं प्रति ।

साहित्यमेककर्त्रादि क्रमश्चापि विवक्षितः ॥

317. VP 1. 73 : न वर्णव्यतिरेकेण पदमन्यच्च विद्यते ।

वाक्यं वर्णपदाभ्यां च व्यतिरिक्तं न किञ्चन ॥

elements of other physical things, and once produced, these speech parts too do not persist to form real complexes with speech parts subsequently produced. One thus ends up denying that there are sounds and words qua complex units, although people do indeed speak of sounds and words and these are accepted as speech units under the view being discussed.³¹⁸ But let us not carry any analysis so far. Let us instead accept merely that there are sounds and strings of sounds, such as *g-au-h*, which one calls *pada*. Now, viewed merely as a string of sounds, there is a single sequence *g-au-h* regardless of what meanings might be connected with this, just as one can say there is a single sound *g* in different words.³¹⁹ Moreover, usage can be cited in support of this position: One says, 'The word *go* has been pronounced eight times', not 'Eight words *go* have been pronounced'.³²⁰ By the same token,

(aaa) अश्वस्त्वं देवदत्तः । 'You, Devadatta, went'.

(bbb) अश्वस्त्वं देवदत्तः । 'You, Devadatta, (are) a horse'.

both contain the same element *aśvas*, a string of sounds *a-ś-v-a-s*.³²¹ On the other hand, *dadhi* and *dadhy* are patently different strings, although both mean 'yogurt'. And this can lead to a paradoxical conclusion I have pointed out, the analysis of sentences into constituent words involves reasoning from *anvaya*

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318. VP 2.28-29 : पदानि वाक्ये तान्येव वर्णास्ते च पदे यदि ।
वर्णेषु वर्णभागानां भेदः स्यात्परमाणुवत् ॥
भागानामनुपपन्नान् वर्णान् न पदं भवेत् ।
तेषामव्यपदेश्यत्वात्किमन्यद् व्यपदिश्यताम् ॥

See also Vṛtti on VP. 1.73 (VPb 136.3-6).

319. VP 1.72 : पदभेदेऽपि वर्णानामेकत्वं न निवर्तते ।
वाक्येषु पदमेकं च भिन्नेष्वप्युपलभ्यते ॥

320. S'Bb. I. 105 : अष्टकृत्वो गोशब्द उच्चरित इति वदन्ति नाष्टौ गोशब्दा इति ।

AK 3.3.25 gives ten meanings associated with *go*.

321. Vṛtti on VP 1.72 (VPb 135.7) : नामाख्यातभेदेऽपि चैकमेवाक्ष्यश्च इत्ये-
वम्प्रकारं पदम् । See also S'IV 7.186-187 with Pārthasārathi's commentary (p. 633),
from which I have taken (aaa)-(bbb), and the Paddhati to the Vṛtti on VP
1.72 (VPb 136.9-13).

and *vyatireka*, which allows one to attribute particular meanings to abstracted words. Under the assumption that a word is nothing more than a sequence of sounds, this reasoning cannot serve to attribute a particular meaning to the string *a-ś-v-a-s* in (aaa) and (bbb). For it is not the case that the continued occurrence of *a-ś-v-a-s* is linked to a single recurring meaning, since (aaa) and (bbb) differ in meaning as shown. Moreover, given *dadhi* and *dadhy*, one cannot claim that the meaning 'yogurt' is not understood when *dadhi* does not occur, since this meaning is indeed understood if *dadhy* occurs.³²² Thus it is possible to argue that reasoning from *anvaya* and *vyatireka* cannot serve to abstract sequences such as *a-ś-v-a-s*, *d-a-dh-i*, to which particular meanings are attributed. On the other hand, if (aaa) and (bbb) are treated as single units not subject to analysis, the problem noted does not arise: these are different units with different meanings. The analysis of utterances down to constituent sounds, if carried to an extreme, can thus lead to the paradoxical conclusion that sentences like (aaa) and (bbb) should be treated as single meaningful units.³²³

14. 2. 2. As is well known, Bhartṛhari and later Pāṇinīyas do maintain the view that words and sentences are indeed units,

322. S'IV 7. 158, 171ab, 176ab, 178 :

नामाख्यातादिसाकल्यवैकल्यानुगमे सति ।

तदर्थसंभवो दृष्टः पदवाक्यान्तराश्रयः ॥

अथ इत्यपि नामेदमाख्यातं लुङि चेदृशम् ।

एवमर्थविकल्पेन भेदेऽर्थो नावतिष्ठते ।

तथा राजार्थवान् दृष्टो राज्ञेत्यत्र च नास्त्यसौ ।

दधि गौरिति नापीमौ विद्यो दध्यत्र गामिति ॥

See also Yuktisnehaprapūraṇi on S'D 1. 1. 7. 24-26 (pp. 155-156).

323. Puṇyārāja on VP 2. 95 (VPc 205) : यदि पदान्येव सत्यानि तदा दध्यान-
येत्यादिसंहितायां रूपविनाशात्पदस्य नियतस्याभावे कमवधिं गृहीत्वा तदर्थो विविच्यताम् ।
अतः प्रविभागशून्यं वाक्यमेवैकं सत्यमभ्युपगन्तव्यम् । S'IV 7. 176cd with Pārthasarāthi's
introduction : निर्भागवाक्यवादिनां तु प्रत्यर्थं वाक्यभेदान्नास्ति व्यभिचार इत्याह - निर्भागे
वाचके वाक्ये समस्तादस्ति निर्णयः ।

called *sphoṭa*, for communicating meanings,³²⁴ and there is an extreme position under this view also. Not only do Bhartṛhari and others hold that a word is actually an indivisible unit without true constituents, just as sounds like *e o ai au ṛ* have no real parts,³²⁵ they also maintain that there is no absolute segregation of words from sentences, which are used as indivisible units of communication.³²⁶ The main reason for taking this stand has to do with the meanings associated with utterances as they are used in normal communication. A parallel is drawn between utterances and terms like *brāhmaṇakambala*. Now, this is a unit with a single complex meaning: a blanket that pertains to a Brāhmaṇa. This term does not have components with status of their own, since *brāhmaṇakambala* functions as a single unit in conveying the meaning in question.³²⁷ To be sure, it is possible to utter *brāhmaṇa-* separately, with a pause before *kambala*, so that the former is indeed perceived separately, and hearers who concentrate on this without expecting the completion of the full term could understand the meaning 'Brāhmaṇa' from the segment, but *brāhmaṇa* of *brāhmaṇakambala* is nevertheless not independently meaningful: the meaning 'Brāhmaṇa' is

324. On Bhartṛhari's view see *Pāṇini, a survey of research*, pp. 300-301, and the following papers from the *Proceedings of the winter institute on ancient Indian theories on sentence-meaning*: G. B. Palsule, 'Bhartṛhari's concept of *vākya* and *vākyaārtha*' (pp. 1-8), P. Shriramamurti, 'The meaning of a sentence is *pratibhā*' (9-16), Satya Kam Varma, 'Sentence-meaning according to Bhartṛhari' (17-37).

325. Puṇyārāja on VP 2.11 (VPc 52): यथा सन्ध्यक्षरेषु भागा वर्णान्तररूपा दृश्यन्ते परमाथैतत्स्वव्यपवृत्तत्वान्निर्विभागा एव ... See also VBhS 490.

326. VP 1.74: पदे न वर्णा विद्यन्ते वर्णेष्ववयवा न च ।

वाक्यात्पदानामत्यन्तं प्रविभागो न कश्चन ॥

See also VSK 66, *Sphoṭavāda* 74. It is not necessary to discuss here details concerning variants of this *kārikā*.

327. Helārāja on VP 3.1.87 (VPd 84.20-22): ...न चावयवाः केचनान्न वस्तुतः सन्ति । विशिष्टेऽर्थे समासपदस्याभिन्नस्यैव प्रवृत्तेः । यथोक्तं वाक्यकाण्डे ब्राह्मणार्थो यथा नास्ति कश्चिद् ब्राह्मणकम्बले (VP 2.14ab) ...

here fused in the single complex meaning of the unit *brāhmaṇa-kambala*³²⁸ Similarly, terms such as *devadatta* in

(ccc) देवदत्त गामभ्याज शुक्लाम् । 'Devadatta, bring the white cow'.

are not independently meaningful: (ccc) is a distinct entity with a meaning of its own.³²⁹ It is true that one can abstract partial meanings, associated with parts abstracted from such sentences, but any such partial meaning is fused in a total sentential meaning. Since people communicate by means of utterances, then, abstracted partial meanings of utterances are outside the domain of normal usage.³³⁰ The unity of a sentence and its meaning is likened to the unity of a complex cognition or of a multicoloured picture. One has a single complex cognition of a group of things. A picture is a single whole with a complex colour and form of its own. Nevertheless, in imitation of the various objects that are cognized, one divides a single cognition into parts. One also speaks of a picture in terms of different colours that go into it. Similarly, one divides a sentence and its meaning into parts. One also explains a sentence, which is a single whole not requiring any complement to complete its meaning, through words that do require other words to make up a semantic whole.³³¹ In addition, Bhartṛhari contrasts the

328. Vṛtti on VP 2.14 (VPc 37) : यथा हि विच्छेदेनोच्चार्यमाणे ब्राह्मणकम्बल इति ब्राह्मणशब्द उपलभ्यमानस्वरूपोऽपि विच्छेदग्राहिभिः समासिमनपेक्षमाणैः प्रतिपत्तुभिः प्रतीयमानार्थोऽप्यनर्थक एवेति प्रसिद्धः । (see note 329).

329. Vṛtti on VP 2.14 (VPc 37, see note 328) : एवं सत्यपि रूपविच्छेदग्रहणे संप्रत्यये चानर्थका एव वाक्यरूपापन्ना देवदत्तादिसरूपा अत्यन्तमसन्तः परिकल्पितात्मानो विभागाभिमताः । See also Puṇyārāja on VP 2.14 (VPc 37) and below, section 14.4.1.

330. Vṛtti on VP 1.24 (VPb 65.1-3) : तत्रापोद्धारपदार्थो नामात्यन्तसंसृष्टः संसर्गादनुमेयेन परिकल्पितेन रूपेण प्रकृतविवेकः सन्नपोद्ध्यते । प्रविविक्तस्य हि तस्य वस्तुनो व्यवहारातीतं रूपम् ।

331. VP 2.7-9 : यथैक एव सर्वार्थप्रकाशः प्रविभज्यते ।
दृश्यभेदानुकारेण वाक्यार्थविगमस्तथा ॥

(Continued on next page)

diversity of opinion possible among analysts with the absence of comparable differences in usage. For example, analysts can differ as to whether segments such as the *-ā* of *ajā* or the *-ī* of *kumārī* signify or cosignify femininity (see section 8. 1), but such differences of opinion do not effect usage : In actual communication, *ajā*, *kumārī*, and such convey single whole meanings.³³²

The extreme position that words have no true status and that only whole sentences are truly meaningful also leads to a paradox. For this view is based on usage : People communicate by means of utterances as meaningful wholes. Yet in actual usage people obviously do recognize words as meaningful parts of sentences.³³³ For example, consider the sentences

(ddd) वनात्कोकिल आनीयताम् । ' A cuckoo should be brought from the forest. '

(eee) वनात्पिक आनीयताम् । ' A cuckoo should be brought from the forest. '

Under the position that all sentences are single indivisible units linked to equally indivisible complex sentential meanings, one would have to say that a person who did not understand fully the command given when (ddd) or (eee) was used would ask only what the sentence meant. Yet one sees people ask about particular words in sentences. A person who does not fully understand (eee) but does understand (ddd), for example,

(Continued from the last page)

चित्रस्यैकस्य रूपस्य यथा भेदनिदर्शनैः ।

नीलादिभिः समाख्यानं क्रियते भिन्नलक्षणैः ॥

तथैवैकस्य वाक्यस्य निराकाङ्क्षस्य सर्वतः ।

शब्दान्तरैः समाख्यानं साकाङ्क्षैरनुगम्यते ॥

332. Vṛtti on VP 1. 28 (VPb 72. 4-73. 7) : अपोद्धारे हि शास्त्रव्यवहारार्थं समुदायात्संस्पृष्टायाः कस्याश्चिदर्थमात्रायाः क्रियमाणे तं तमवधिं प्रति निमित्तत्वेनार्थानां पुरुषाधीनो विकल्पभेदः संभवति -- खियामिति किं स्व्यर्थाभिधाने द्वाबादयः स्व्यर्थवृत्तेः प्रातिपदिकात्स्वार्थे वेति -- न ह्येते विकल्पा लौकिकाः । समुदायार्थे हि लौकिके व्यभिचाराभावात् ।

333. Cf. SD 1. 1. 7. 24-28 (pp. 155-159) : वाक्यार्थस्य च निर्भागत्वं भागावगमात् ... निरसनीयम् । Of course, the partial meanings people understand are meanings of words which make up utterances.

inquires about a single word, *pika*. He knows what *vanāt* and *āṇiyatām* mean, but he does not know the meaning of *pika*.³³⁴

14. 3. The difficulties brought up can of course be overcome albeit with some modifications in the points of view under consideration.

14. 3. 1. As Pāṇinīyas recognize, two points of view can be adopted concerning segments like *go* : Since there is no difference in the sounds connected with various meanings (see note 320), one can consider that there is a single unit with many meanings; on the other hand, since there are indeed several meanings involved, one can also consider that there are distinct homophonous items, each connected with a different meaning.³³⁵ Whether one operates with a single polysemic element or with more than one homophonous unit, moreover, may depend on precisely what is to be done with the elements in question. Consider, for example, the term or terms *bhuj* of *bhujati* 'bends', *bhunakti* (< *bhunaj-ti*) 'protects' and *bhunkte* 'eats', in connection with Pāṇini's derivational system. A Pāṇinian derivation starts with semantics and proceeds by introducing elements associated with various meanings (see section 13). Let us take the meanings 'bend', 'protect', and 'eat', referred to current time and connected each with one agent. With the verb *bhuj* used to signify each of these actions, at a stage of deriving the utterances that include the verb and its affixes there are complexes *bhuj-L*, consisting of *bhuj* and the L-affix *LAṬ* [see (91) A 3. 4. 78, section 7. 1, and note 70], which is subsequently replaced by verb endings (see note 69): *bhuj-ti*, with the parasmaipada ending *tiP* if the meaning in question is 'bend' or 'protect',

334. VP 2. 72 : निर्ज्ञातार्थं पदं यच्च तदर्थे प्रतिपादिते ।

पिकादि यदविज्ञातं तत्किमित्यनुयुज्यते ॥

(see) is given as an example in the Vṛtti and Puṇyārāja's commentary on this kārikā (VPc 137).

335. See, for example, Vṛtti on VP 1. 75 (VPb 139. 8-9: ... श्रुत्यमेदादनेका-र्थत्वेऽप्येकशब्दत्वम् अर्थमेदादेकश्रुतित्वेऽप्यनेकशब्दत्वमिति ।), Puṇyārāja on VP 2. 257 (VPc 368)

but *bhuj-te* (< *bhuj-ta*), with the *ātmanepada* ending *te* (< *ta*), if the meaning is 'eat'. Obviously, meaning differences have to do with the use of different endings. However, there are also grammatical elements whose distribution is not determined semantically. Verbal affixes which Pāṇinīyas call *vikaraṇa* are of this type. There is a subset of *vikaraṇas* introduced on condition that a verb occurs with a suffix of the *sārvadhātuka* class used to signify an agent (see note 337). Although the occurrence of these *vikaraṇas* is thus connected with a semantic feature, their distribution is not regularly determined by meaning.³³⁶ Instead, these affixes occur with verbs of different groups listed in Pāṇini's *dhātupāṭha*. For example, verbs of the group that begins with *tud* take the *vikaraṇa* *Śa* (*tud-a-ti* 'shoves, prods'), but verbs in the group beginning with *rudh* 'hold down, obstruct' take *ŚnaM* (*ruṇaddhi* < *runadh-ti*, *runddhe* < *rundh-te*).³³⁷ Clearly, *bhuj-a-ti* is of the type *tud-a-ti* and *bhunakti*, *bhunkte* are of the type *ruṇaddhi*, *runddhe*. Accordingly, separate elements *bhuj*, belonging to the sets beginning with *tud* and *rudh*, are recognized in Pāṇini's *dhātupāṭha*.³³⁸ Pāṇini does not, however, recognize in his *dhātupāṭha* three separate verbs *bhuj* in accordance with the different meanings noted above. For the primary distinction he makes among verbs listed in his *dhātupāṭha* is according to the *vikaraṇas* they take in forms of the type *bhavati*, *atti*, etc. (see note 337). By this formal criterion, he does not recognize distinct bases in *bhunakti* and *bhunkte*, since both of these are of the same type, with the *vikaraṇa* *ŚnaM*,³³⁹ but he does acknowledge a distinct base in *bhuj-a-ti*, which has the

336. I say 'not regularly', since in one of the rules in question (A 3.1.76 : तनूकरणे तक्षः ।) a meaning is specified.

337. A 3.1.77 : तुदादिभ्यः शः ।, 3.1.78 : रुधादिभ्यः इनम् । exceptions to A 3.1.68 : कर्तरि शप् ।, according to which *ŚaP* follows a verb that occurs with a *sārvadhātuka* suffix denoting an agent.

338. *bhujO* in the *tudādi* group, *bhujA* in the *rudhādi* group.

339. *ŚnaM* is marked with *m* to show it is an infix (A 1.1.47, note 211). Its *a* is deleted in a stem followed by a *sārvadhātuka* marked with *k* or *ṅ* (A 6.4.111 : इनसोरलोपः ।).

vikaraṇa Śa. To account for the use of ātmanepada and parasmaipada endings in *bhunkte* and *bhunakti* respectively, Pāṇini provides that ātmanepada affixes occur to signify an agent with *bhuj* used in a meaning other than 'protect'.³⁴⁰ Thus, under different circumstances within the context of his derivational system, Pāṇini acknowledges both single polysemic elements and distinct homophonous units.

If instead of accounting for utterances by derivation, one is analyzing them in order to arrive at constituents, the situation is of course different. Since the analytic procedure involves reasoning from *anvaya* and *vyatireka*, one can adopt as a working principle that a difference in meaning entails a difference in terms, with the consequence that distinct homophonous items are recognized in sentences like (aaa) and (bbb) (see section 14.2.1): *āśvas* 'you went', *āśvas* 'horse'. By proceeding in this way, one simply acknowledges that words are connected with meanings, that they are not purely strings of sounds in isolation. Moreover, recognizing distinct homophonous items in sentences being analyzed is justified in other ways also. For example, one can substitute *āgamas* for *āśvas* in (aaa) without affecting what is understood, but the same cannot be done in (bbb), and *aśvas* of (aaa) is related to terms such as *āśvat* (3rd sg.), while *āśvas* of (bbb) is related to terms such as *āśvam* (acc. ag.).³⁴¹ Further, since meaning is recognized as crucial to the abstraction of items in sentences being analyzed, one can also adopt a principle of complementation such that items with like meanings, though they differ in part, are treated as same if the differences in question can be accounted for in terms of phonological or grammatical context that make them complementary. Thus, *dadhi* and *dadhy* are complementary in terms of phono-

340. A. 1. 3. 66 : सुजोऽनवने ।

341. Moreover, *āśvat*, *āśvas* are related to other verb forms, such as the present forms *śvayati*, *śvayasi*, which justify positing *śvi* as the basic verb root but nominal *aśvas* etc. are to be derived from a base *aśva*.

logical contexts, and *ásva-*, with the augment *á* and the base from *śva* instead of *śvi*, occurs in a particular grammatical context.³⁴²

In this manner, one can indeed justify the analysis of sentences into constituent words, meanings of which enter into total sentential meanings.

14. 3. 2. In accordance with the thesis that sentences are indivisible units of communication (section 14. 2. 2), Bhartṛhari maintains that sentences such as (ddd) and (eee) are absolutely distinct entities with indivisible sentence meanings. Due to their partial similarity, however, one concludes that these sentences share constituent meanings.³⁴³ Bhartṛhari draws a parallel between this and conceptions people have of a gayal and of the man-lion. Each of these is *sui generis*, cognized as a single indivisible entity. Yet people see in the gayal a similarity to a horse and a cow and in the man-lion a similarity to a man and a lion, so that they understand a gayal and man-lion to have the properties of these creatures.³⁴⁴ Moreover, insists Bhartṛhari, the abstraction of constituent items and their meanings, by means of reasoning from *anvaya* and *vyatireka*, serves only the end of describing actual usage by means of a grammatical procedure.³⁴⁵ Nevertheless, Bhartṛhari admits that

342. In his *Ślokaavārttika* (7. 187), Kumārila appeals to grammar in order to distinguish the nominal and verbal forms *ásvas*, and in his commentary on the verse, Pārthasārathi gives the derivation of *ásvas* according to Pāṇini's system.

343. VP 2. 92 : तथा पिकादियोगेन वाक्येऽत्यन्तविलक्षणे ।
सदृशस्यैव संज्ञानमसतोऽर्थस्य मन्यते ॥

344. VP 2. 90 : गवये नरासिंहे चाप्येकज्ञानाद्भूते यथा ।
भागं जात्यन्तरस्यैव सदृशं प्रतिपद्यते ॥

A full discussion of variants of this *kārikā* is out of the question here. Suffice it to note that, under the reading adopted in Rau's edition, the verse says one apprehends a part similar to that of another type without actually having a single cognition of that part in a gayal or *narasiṃha*.

345. VP 2. 12cd : अन्वयव्यतिरेकौ तु व्यवहारनिबन्धनम् ॥

See also *Vṛtti* on VP 1. 24 (VPb 65. 4-6).

meanings abstracted in the way described accord not only with what grammarians speak of but also with similar distinctions that people make in ordinary intercourse.³⁴⁶ Thus, although one might ultimately claim that only indivisible utterances associated with equally indivisible sentential meanings are true speech units, one has also to accept constituent words and their meanings, even if these are treated merely as abstracted constructs, and one cannot deny that in ordinary usage also people do indeed operate with such constituents. Indeed, Bhartṛhari acknowledges that some make the word the upper limit of explanation, while others accept the sentence as the upper limit.³⁴⁷

14. 4. Both words and sentences are of course used meaningfully.³⁴⁸ It is not obvious, however, just how meanings understood from sentences are related to meanings of padas in sentences. Indeed, it is not obvious that one must recognize sentences and sentence meanings as independent of padas and their meanings. Discussions concerning these questions are known from the time of Kātyāyana on. Let us now briefly consider what Kātyāyana and Patañjali say, in their discussions of (96) A 1. 2. 45 (section 7. 1), regarding these points and go on to look at two major views about sentence meanings.

14. 4. 1. In (96) A 1. 2. 45, Pāṇini provides that a meaningful unit other than a verb or an affix has the class name *prātipadika*. Kātyāyana suggests that one must explicitly deny this class name to sentences, since these too are meaningful.³⁴⁹ One

346. Vṛtti on VP 1. 24 (VPb 65. 6-7) : सोऽयमपोद्धारपदार्थः शास्त्रव्यवहारमनुपतति शास्त्रव्यवहारसदृशं च लौकिकं भेदव्यवहारम् ।

347. Vṛtti on VP 1. 24 (VPb 68. 5-6) : केषाञ्चित्पदावधिकमन्वाख्यानम् वाक्यावधिकमेकेषाम् । Cf. Vṛtti, VPb 77. 1 : स्थितलक्षणस्तु शास्त्रे पदार्थो वाक्यार्थो वा ।

348. For the present discussion, it does not matter whether the words in question are such as may be considered directly to signify meanings or, as in the case of particles, only to cosignify meanings attributed to other words.

349. A 1. 2. 45 vt. 3 : वाक्यप्रतिषेधोऽर्थवत्त्वात् । The Mahābhāṣya cites (ccc) (section 14. 2. 2) as an example (Bh. I, 217. 25-218. 1).

might entertain the view that no meaning other than those of its constituent padas is understood from a sentence,³⁵⁰ but Kātyāyana rejects this, maintaining that in addition one understands a sentential meaning, a relation among the meanings of words in a sentence.³⁵¹ Patañjali illustrates what is meant by means of sentence (ccc) (section 14. 3. 1). The terms *devadatta*, *gām*, *abhyāja*,³⁵² and *śuklām* have general meanings in which they are understood if taken out of the context of (ccc). Thus, *devadatta* can be used to address a man named Devadatta who is supposed to perform any act, so that, when one says merely *devadatta*, although an agent may be referred to, one has not referred to any particular action of which Devadatta is agent, to any object of that action, or to any property of such an object. Similarly, if *gām* is used, an object of an action is referred to but not the action in question; nor has one now referred to an agent or to any property of the object. If *abhyāja* is used, an action is referred to, but not an agent, an object, or a property. And if one says *śuklām*, one refers to a property but not to an agent, a particular object that has the property in question, or an action. On the other hand, when (ccc) is used as a whole, all of these are specifically referred to: One understands from (ccc) that there is a particular agent, Devadatta and no other, who is supposed to perform the specific act of bringing, not some other act, in which only a cow is object, not something else, and that this object is white, not black. In sum, (ccc) has a sentential meaning over and above the general meanings which constituents have by themselves, namely a specific qualified relational meaning in which these constituent meanings are combined.³⁵³

350. Bh. I. 218. 2 : न वै पदार्थादन्यस्यार्थस्योपलब्धिर्भवति वाक्ये ।

351. A 1. 2. 45 vt. 4 : पदार्थादन्यस्यानुपलब्धिरिति चेत्पदार्थाभिसंबन्धस्योपलब्धिः ।

352. *abhi-āja*, with preverb *abhi*; see note 301.

353. Bh. I. 218. 4-10 : पदार्थादन्यस्यानुपलब्धिरिति चेदेवमुच्यते । पदार्थाभिसंबन्धस्योपलब्धिर्भवति वाक्ये । इह देवदत्त इत्युक्ते कर्ता निर्दिष्टः कर्म क्रियागुणौ चानिर्दिष्टौ । गामित्युक्ते कर्म निर्दिष्टं कर्ता क्रियागुणौ चानिर्दिष्टौ । अभ्याजेत्युक्ते क्रिया निर्दिष्टा कर्तृकर्मणी

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14. 4. 2. Any one maintaining the position which Kātyāyana rejects (see section 14. 4. 1 with note 350) obviously holds that there are no sentential meanings absolutely distinct from the meanings of constituent padas. Although this general position admits of several possible views, Kaiyaṭa mentions in particular the well known stand of Bhāṭṭa Mīmāṃsakas : A sentence is nothing more than a group of padas, each of which conveys its own meaning, not something separate from these padas, and a sentential meaning is simply the meanings of individual padas brought into relation with each other by dint of expectancy, semantic fit, and propinquity.³⁵⁴ That is, words cease to play a direct role as signifiers once they have signified their own meanings, and it is these meanings which, once understood from individual words, convey a sentential meaning.³⁵⁵ Now, one could remain fairly vague about the way in which word meanings serve to convey sentence meanings. For example, the understanding of specific sentential meanings after one has understood general word meanings could be likened to people's experiencing emotions such as joy after hearing utterances like

(fff) पुत्रस्ते जातः । ' A son has been born to you '.

These emotions are not meanings signified by words like *putrah*, but they do result from what one understands from such words used in sentences like (fff). Similarly, one could view the process of comprehending sentence meanings as follows. Individual words cease to function once they have conveyed their own

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गुणश्चानिर्दिष्टः । शुक्लमित्युक्ते गुणो निर्दिष्टः कर्तृकर्मणी क्रिया चानिर्दिष्टा । इहेदानीं देवदत्त गामभ्याज शुक्लमित्युक्ते सर्वे निर्दिष्टे भवन्ति । देवदत्त एव कर्ता नान्यः । गौरेव कर्म नान्यत् । अभ्याजिरेव क्रिया नान्या । शुक्लमेव न कृष्णमिति । एतेषां पदानां सामान्ये वर्तमानानां यद्विशेषेऽवस्थानं स वाक्यार्थः ।

354. Pr. II. 73 : पदानि स्वं स्वमर्थं प्रतिपादयन्ति वाक्यम् । पदार्था एव त्वाकाङ्क्षा-योग्यतासन्निधिवशात्परस्परसंसृष्टा वाक्यार्थे इत्यर्थः । न तु वाक्यं वाक्यार्थो वा पृथगस्तीति भावः ।

355. S'Bh. I. 116 : पदानि हि स्वं स्वं पदार्थमभिधाय निवृत्तव्यापाराणि । अथेदानीं पदार्था अवगताः सन्तो वाक्यार्थं गमयन्ति ।

general meanings, but a certain relation among these meanings then comes into play which makes specific the unspecified meanings understood from words alone. Since this relation is not directly conveyed by any speech unit, a sentential meaning is not directly related to any speech unit.³⁵⁶ Bhāṭṭa Mīmāṃsakas do not leave the matter quite so vague. According to them, sentential meanings are indirectly linked with words, through the intermediary of word meanings, by the relation called *lakṣaṇā*, which also serves to connect words with secondary meanings. In general, if *P* is a pada whose meaning a speaker wishes to convey as a qualificand in an utterance, then *P*, which primarily signifies a general meaning *M*, secondarily signifies (*lakṣayati*) a specific meaning *M*₁, and other padas of the utterance also secondarily signify *M*₁. For example, the verb of (uu) (section 14) first primarily signifies (*abhidhāya*) any act of bringing, in general, and only secondarily signifies a particular act of bringing. The noun of (uu) also secondarily signifies such a particular act of bringing, as related to an object cow.³⁵⁷ One has to specify that the padas in question are part of the same utterance. For otherwise it would be difficult to justify how, for example, *gām* of (uu) secondarily signifies an act of bringing, not just any act in which a cow functions as object.³⁵⁸

356. The Vṛtti's introduction to VP 2. 16 (VPc 40) : एवं तर्ह्यशब्दो वाक्यार्थः । शब्देष्वात्मरूपमात्राप्रतिपत्तिहेतुषु तिरोहितेष्वव्यपदेश्यसंस्कारविशेषायां बुद्धानुपजातायां पदेषु पदार्थमात्रं प्रत्याख्य निवृत्तेष्वशब्दवाच्योऽसत्त्वभूतः संबन्धः संज्ञार्थानां सामान्यरूपाणां भेदहेतुरुपप्लवमानः शोकहर्षादिवदुत्तरेषु बुद्ध्यन्तरेष्वनुसंधीयते ।

357. SD I. 1. 7. 24-26 (p. 154) : तस्मात्पदामिहितैः पदार्थैर्लक्षणया वाक्यार्थः प्रतिपाद्यते । तत्र गामानेयेत्यानयतिरानयनसामान्यमभिधाय तद्वर्थाक्तं लक्षयति । गोपदमपि स्वार्थद्वारेणानयनमेव गोकर्मकत्वाकारेण तत्संबन्धित्वरूपेण लक्षणया प्रतिपादयति । एवं यत्र यत्र वाक्ये यो योऽर्थो विशेष्यत्वेन विवक्षितस्तमेव स्वपदेन सामान्यवाचिना लक्षितं सन्तमितराणि पदानि स्वार्थमिधानद्वारेण तत्संबन्धित्वरूपेण लक्षयन्ति । As is clear from what Pārthasārathi says, words are linked to secondary meanings through the intermediary of their primary meanings; see IL 40 : 204 (1979), note 3.

358. SD I. 1. 7. 24-26 (pp. 154-155) : ननु कर्मत्वेनाभिहिता गौस्तत्कर्मिका क्रिया लक्षयन्त्यपि कथमानयनमेव लक्षयति । तदेकवाक्यतयेति ब्रूमः ।

One major reason for resorting to *lakṣaṇā* is that what someone intends to convey cannot otherwise be accounted for. Thus, if a person uses *gām* as in (uu), he must intend to refer to a cow as an object of bringing in particular, not just to any cow. In portraying how sentential meanings are conveyed, then, Bhāṭṭa Mīmāṃsakas emphasize the role of what a speaker intends by using word in a particular utterance.³⁵⁹ Śabara too emphasizes in this connection a speaker's intention that a particular meaning be understood from what he says. Śabara brings his point home by considering the use of terms like *śukla* 'white' and *kṛṣṇa* 'black', which denote properties and things possessed of properties. The meaning first understood from such a term, according to Śabara, is a quality, but this property suffices to make one think of something that is qualified by it. Therefore, says Śabara, speakers use merely terms like *śukla* and *kṛṣṇa* when they wish one to understand things that possess the properties in question,³⁶⁰ knowing that what they intend to convey will succeed in being conveyed: Any hearer will understand a particular qualified thing.³⁶¹

Śabara concludes it is not necessary to operate with sentential meanings that are directly linked to sentences: The purpose for using any sentence is to have someone understand a particular qualified meaning, and if this sentential meaning is understood from some other given source, who will claim that because there are sentential meanings one must conclude that a complex of words has an unseen and otherwise unknown separate capacity to signify a sentential meaning directly?³⁶² Moreover, Śabara

359. For example, Pārthasārathi in his comments on S'IV 7. 230 (p. 641): वाक्यार्थे हि शब्दानां तात्पर्यं न पदार्थेषु तेषां प्रमाणान्तरसिद्धत्वात् ।

360. That is, one does not use terms such as *śuklavat*; see ALB 31-32: 327-331 (1967-1968).

361. S'Bh. I. 116: यत्र हि शुक्ल इति वा कृष्ण इति वा गुणः प्रतीतो भवति । भवति खल्वसावलं गुणवति प्रत्ययमाधातुम् । तेन गुणवति प्रत्ययमिच्छन्तः केवलं गुणवचनमुच्चारयन्ति । संवत्सत एषां यथासंस्कल्पितोऽभिप्रायः । भविष्यति विशिष्टार्थसंप्रत्ययः ।

362. S'Bh. I. 116: विशिष्टार्थसंप्रत्ययश्च वाक्यार्थः । एवं चेदवगम्यतेऽन्यत एव वाक्यार्थः को जातुचिददृष्टा पदसमुदायस्य शक्तिरथादवगम्यत इति वदिष्यति ।

supports this conclusion with an argument based on *anvaya* and *vyatireka*. There are situations such that people do not grasp the meanings of words that are uttered, because they are suffering from some mental perturbation. If an utterance did not have independent status as a distinct meaningful unit directly related to a sentential meaning separate from word meanings, it would follow that such people would then necessarily not understand any sentential meaning, and indeed they do not. Further, say a person vaguely sees some white at a distance, without actually perceiving any particular white thing. He then understands that there is some particular white thing out there, even though the word *śukla* has not been uttered. Therefore, concludes Śabara, there is no direct connection between a sentence meaning and a complex of words. A sentential meaning is understood simply from the meanings of words in an utterance.³⁶³

14. 4. 3. One aspect of the viewpoint considered in section 14. 4. 2 is obviously less than completely satisfactory. Mīmāṃsakas in general accept that there are groups of words which can be isolated as single sentences on the basis of essentially semantic criteria (see section 13. 2), and, as can be seen from passages cited earlier (see notes 355, 357, 359, 361), they commonly use the term *vākyārtha* 'sentence meaning'. The same Mīmāṃsakas who thus accept that there are complexes of words constituting sentences and that these have sentential meanings hold nevertheless that there is no direct relation between these two, so that what is called *vākyārtha* ends up being a metaphoric meaning of constituent words. Opponents of this stand have of course pointed out that it is not fully satisfactory.³⁶⁴

363. S' Bh. I. 117 : अपि चान्वयव्यतिरेकाभ्यामेतदवगम्यते । भवति हि कदाचिदियम-
वस्था मानसादप्याघाताद् यदुच्चरितेभ्यः पदेभ्यो न पदार्था अवधार्यन्ते । तदानीं नियोगतो
वाक्यार्थं नावगच्छेयुर्थस्यार्थगर्थमभविष्यत् नियोगतस्तु नावगच्छन्ति । अपि चान्तरेणापि
पदोच्चारणं यः शौक्यमवगच्छत्यवगच्छत्येवासौ शुक्लगुणकम् । तस्मात्पदार्थप्रत्यय एव वाक्यार्थो
नास्य पदसमुदायेन संबन्धः ।

364. See, for example, VP 2. 16, Ud. II. 73. I cannot consider further details here.

This particular problem does not come up if one operates with sentences as single, ultimately indivisible units that are directly related to equally indivisible sentence meanings (see section 14. 2. 2), but another issue does arise. Any one will readily accept that for a hearer to understand what is meant by *aśva* he know that this word is related to the meaning 'horse'. It is also possible to accept that a person can acquire a knowledge of a direct relation between *aśva* and its meaning without having heard every possible use of the word and seen every possible horse one could refer to. For one can properly maintain that any given instance of *aśva* is a token of a word and that any particular horse is a member of a class in which all members have the common property of being horses (*aśvatva*), so that one learns a relation between a word and a referent that is a member of a class, qualified by a class property.³⁶⁵ On the other hand, it would be hard to maintain that the specific meaning of any sentence is a member of a definable class qualified by a particular class property comparable to one such as *aśvatva*. One would, then, have to accept that in order to understand any given sentence a person would have to know beforehand a relation between that utterance and its meaning. This is not possible, since the specific meaning in question is conveyed precisely by that sentence and is not a prior given.³⁶⁶ Moreover, since there are at least theoretically innumerable possible sentence meanings, one cannot expect a person to learn a separate relation for each such meaning.³⁶⁷ Yet people do communicate by means of

365. I mean to be understood here as speaking in a manner that is neutral with respect to whether or not one has to accept a *śabdāśphoṭa* and whether *śakti* is conceived of as a capacity a term has to signify a meaning or as a relation between a term and a meaning.

366. Bhaṭṭoji (VSK 64 : अर्थे विशिष्य संबन्धाग्रहणं चेत्समं पदे ।) tries to maintain that the same problem arises in connection with words and their meanings, but this is actually true only under the *anvitābhīdhāna* view that a word signifies a meaning related to another.

367. See, for example, Pārthasārathi's comment on SIV 7.121 : तत्र निर्भागवाक्यवादिना यावदर्थमनन्तानि वाक्यान्यनुपलभ्यमानानि तच्छक्तयश्चानन्ताः कल्प्याः ।, Pr. II. 74-75 : ... प्रतिवाक्यं व्युत्पत्त्यसंभवाच्छब्दव्यवहाराभावप्रसङ्गात् ।

sentences and understand utterances that have not been heard before.

Bhartṛhari as much as admits the difficulty in his viewpoint. He admits that constituent word meanings are separately grasped (*vicchedagrahaṇe*) and that, although a listener grasps a sentential meaning as a flash of insight (*pratibhā*), this is made possible by the constituent word meanings.³⁶⁸ A listener's *pratibhā* is not susceptible of being explained to another in specific terms, even by the person who experiences it,³⁶⁹ but it is known from its effect : Without being made the object of conscious deliberation (*avicāritā*), *pratibhā* brings about a mingling as it were of constituent meanings, and is itself the object which these separate meanings bring out manifestly.³⁷⁰ In effect, the absolute unity of sentences and sentential meanings are upheld as ideals, but it is not possible for Bhartṛhari to deny absolutely that sentences can be considered to have constituent words and word meanings.³⁷¹ Indeed, if a grammarian is to describe the grammar of Sanskrit in a generalized manner, he has to operate with such constituents, even if these are treated merely as means to an end.³⁷²

14. 4. 4. Of course Pāṇini does operate with *padas* as constituents of this derivational system (see section 14). Moreover, as Pāṇini does not have to specify within this system that stretches of speech characterized by specified grammatical features

368. VP 2. 143 : विच्छेदग्रहणेऽर्थानां प्रतिभान्यैव जायते ।

वाक्यार्थ इति तामाहुः पदार्थैरुपपादितम् ॥

369. VP 2. 144 : इदं तदिति सान्येषामनाख्येया कथञ्चन ।

प्रत्यात्मवृत्तिसिद्धा सा कत्रापि न निरूप्यते ॥

370. VP 2. 145 : उपरूपमिवावधानं सा करोत्यविचारिता ।

सार्वरूप्यमिवापन्ना विषयत्वेन वर्तते ॥

371. Of course, Bhartṛhari upholds his ideals of unity within a philosophical system in which *pratibhā* is equated with *paśyanti vāk* and all beings have innate knowledge of this (cf. VP 1. 129-130, Vṛtti on VP 1. 14 [VPb 48. 1]).

372. This point is made often; see, for example, VP 2. 38, Pr. II. 74, and the passages alluded to in note 345.

are called *vākya* (see section 13. 4), he also does not have to say explicitly that certain properties of constituents and their meanings make utterances well formed. The requirement of propinquity (*āsatti, sannidhi*) among constituents is obviously met in any given derivation, and the requirement of semantic expectancy (*ākāṅkṣā*) for constituents of a well formed utterance is met in Pāṇini's system, which starts with semantics and serves to derive strings of related terms.³⁷³ On the other hand, Pāṇini's grammar does not require that the meanings of constituent words be semantically compatible (*yogyatā*), for the obvious reason that as a grammarian Pāṇini considers acceptable sentences which, though semantically deviant, are formally proper.³⁷⁴

15. Bhartṛhari obviously leaves no doubt about his stand concerning the relative status of sentences and constituent *padas* : The latter are simply posited means that serve to account for sentences, which alone have absolute status (see sections 14. 2. 2, 14. 3. 2, 14. 4. 2). There is evidence to indicate predecessors of Bhartṛhari held similar views.

15. 1. (94) A 1. 3. 1 (section 7. 1) assigns the class name *dhātu* to elements of an ordered set given in an appendix to the Aṣṭādhyāyī proper, Pāṇini's *dhātupāṭha*. For reasons which need not be discussed here, a descriptive rule is suggested to replace this sūtra : An element that signifies *bhāva* is called *dhātu*.³⁷⁵ This suggestion encounters objections in connection with forms like *śiśye*, derived in Pāṇini's system from the base *śiN* and the L-affix *IT*, introduced when *bhāva* is to be

373. Pāṇini not only knew of semantic expectancy but also used the term *ākāṅkṣā*; cf. A 3. 2. 114 : विभाषा साकाङ्क्षे ।

374. See pp. 25-32 of 'Subject in Sanskrit', in *The notion of subject in South Asian languages*, edited by M. K. Verma (Madison, Wisconsin, 1976), 'Grammar and philosophy' in *Summaries of papers from the South Asia Seminar 1979-80*, University of Pennsylvania, edited by P. Gaeffke and S. Oleksiw, pp. 3-11.

375. Bh. I. 256. 18 : यदि पुनर्भाववचनो धातुरिति लक्षणं क्रियेत । See the discussion referred to in note 260.

signified [(99) A 3. 4. 69]. One of the objections is that the suggested revision leads to circularity: A base like *śiN* does not occur alone, so that one can understand a unit to signify *bhāva* only after an affix has come in; yet such an affix, as in *śiśye* (< *śi-L*), is allowed to occur after an element that signifies *bhāva*.³⁷⁶ Kātyāyana answers this objection by saying that an affix occurs without one having to resort to saying something signifies *bhāva*, since speech units are permanent.³⁷⁷ There is an apparent contradiction in what Kātyāyana says. For, if (99) A 3. 4. 69 introduces an affix after a *dhātu*, now considered a unit that signifies *bhāva*, how can Kātyāyana claim the affix of *śiśye* occurs without one resorting to the very property which characterizes a *dhātu*? As Pāṇinīyas recognize, however, the apparent contradiction is resolved if one sees that Kātyāyana is speaking of units at different levels. A word like *śiśye* is a single unit of communication which a grammarian analyzes into a base and an affix, as he analyzes *pacati* into a base and two affixes. Since in real communication such words function as single units with complex meanings, Kātyāyana can say that *śiśye* has an affix — that is, a segment grammarians can abstract as an affix — and maintain at the same time that one does not have to say there is in *śiśye* a separate unit which itself signifies *bhāva* and therefore can be followed by an affix. Once elements posited by grammarians are abstracted from such units of communication, however, one does say that *śiśye* contains a base signifying *bhāva*.³⁷⁸ This interpretation of what Kātyāyana says is definitely to be accepted, since the reason he gives for his conclusion is that speech elements are permanent (*nityaśabdatvāt*). It is therefore proper to say that in Kātyāyana's opinion, as in Bhartrhari's, components of words abstracted from items people actually use in normal communi-

376. A 1. 3. 1 vt. 9 : इतरेतराश्रयं च । प्रत्यये भाववचनत्वं तस्माच्च प्रत्ययः ।

377. A 1. 3. 1 vt. 10 : सिद्धं तु नित्यशब्दत्वादनाश्रित्य भाववचनत्वं प्रत्ययः ।

378. Pr. II. 191-192 : सिद्धं तु । व्यवस्थिता एव पचत्यादयः समुदायाः संसृष्टार्थाभिधायिनः । केवलमुत्प्रेक्ष्योत्प्रेक्ष्य प्रक्रियायामर्थवैभागः शब्दविभागश्चापेक्षियते इत्यर्थः । अनाश्रित्येति । पारमार्थिकं नाश्रीयते । परिकल्पितं त्वाश्रीयत एव । See also LM 9,

cation are simply means whereby a grammarian like Pāṇini accounts for words and sentences in a generalized manner through a derivational system.

15. 2. Pāṇini himself can in no way be considered the first Indian grammarian to have operated with such abstracted constituents. It is well known that padakāras carried out analyses of Vedic saṃhitāpāṭhas into constituents, and Pāṇini definitely shows a knowledge of one such analysis, since he alludes to Śākalya's padapāṭha for the R̥gveda.³⁷⁹ What is more, Pāṇini and Śākalya differ in their treatment of certain complex elements.

Consider now how Pāṇini and Śākalya treat some derivatives with the affix *mat*³⁸⁰ and its variant *vat*.³⁸¹ In Pāṇini's system, a derivate such as *lomavat* 'hairy' is accounted for by introducing the *taddhita* affix *matUP* after *loman-as* (with the nominative plural ending *Jas*), a value of *tad* (see note 380), then deleting the ending in *loman-as-mat* (see note 125): since *loman* of *loman-mat* is a pada (see note 136), its *-n* is deleted:³⁸² *loman-mat* → *loma-mat* → *loma-vat*. *gomat* 'rich in cows' and *hiranyavat* 'rich in gold' are similarly derived, and *ūrjasvat* 'rich in nourishment' too is derived with *matUP*. However, if *ūrjas* in *ūrjas-mat* (< *ūrjas-s-mat*) were also allowed to belong to the pada class, its *-s* would be replaced by *r* (see note 136) and one would ultimately allow the undesired result **ūrjovat*. Hence, Pāṇini excludes from the pada class items in *-s* followed by suffixes with the meaning of *matUP*,³⁸³ *vr̥ṣaṇvat* is comparable to *lomavat* in that this also is formed from a nominal base in *-n* (*vr̥ṣan* 'bull'). Accordingly, in Pāṇini's system *matUP*

379. See *Pāṇini, a survey of research*, p. 274, and 'Pāṇini's reference to Śākalya in Aṣṭādhyāyī 1.1.16', appearing in the U. P. Shah felicitation volume.

380. A 5.2.94 : तदस्यास्यसिन्निति मतुप् ।

381. A 8.2.9 : मादुपधायाश्च मतोर्वोऽयवादिभ्यः ।

382. A 8.2.7 : नलोपः प्रातिपदिकान्तस्य ।

383. A 1.4.19 : तसौ मत्वर्थे । assigns the class name *bha* to an item in *-t* or *-s* before a suffix introduced in the meaning that conditions *matUP*.

is introduced after *vr̥ṣan-s*, and operations then apply as for deriving *lomavat* : *vr̥ṣan-s-mat* → *vr̥ṣan-mat* → *vr̥ṣa-mat* → *vr̥ṣa-vat*. However, *vr̥ṣaṇvat* is of an archaic type proper to Vedic usage, with *-an-* or *-aṇ-* preceding the *-v-* of the suffix *vat*. Pāṇini accounts for this by introducing an augment *n*. This *-n-* should be subject to retroflexion after *-ṣa-*,³⁸⁴ but pada-final *-n*, as in *vr̥kṣān* (acc. pl.) 'trees', is exempt from this replacement.³⁸⁵ Therefore, in deriving *vr̥ṣaṇvat*, Pāṇini introduces the initial augment *nUT* as part of the suffix.³⁸⁶ *akṣaṇvat* 'one who has eyes, who is sighted' is similarly derived, except that in Pāṇini's description the primitive base for this derivative is *akṣi*, whose *-i* is replaced by *an*.³⁸⁷ Śākalya's analysis of forms with *gomat*, *hiranyavat*, *ūrjasvat* is in harmony with what Pāṇini does. Śākalya also recognizes a pada boundary before the suffix of *gomat*, *hiranyavat* but not before the suffix of *ūrjasvat*.³⁸⁸ In addition, Śākalya too recognizes a boundary in forms of *vr̥ṣaṇvat*, *akṣaṇvat*, but his analysis of these differs from Pāṇini's *vr̥ṣaṇ-vat*, *akṣaṇ-vat*³⁸⁹ instead of *vr̥ṣa-ṇvat*, *akṣa-ṇvat*. Pāṇinīyas, who are aware of this difference, note that under Pāṇini's description the *avagraha* would occur in an undesired place in the padapāṭha forms.³⁹⁰ This does not mean that Pāṇini should change the way in which he accounts for such derivatives, since, as shown, allowing *vr̥ṣan-vat*, *akṣan-vat* would result in not providing for the required forms. In this connection, Patañjali remarks that rules of grammar do not have to conform with what padakāras do; on the contrary, padakāras should conform with

384. A 8.4.1 : रषाभ्यां नो णः समानपदे । et seq.

385. A 8.4.37 : पदान्तस्य ।

386. A 8.2.16 : अनो नुट । . Historically, *-an* represents the outcome of a vocalic *n* before *-v*; see Debrunner, *Altindische Grammatik* II. 2, p. 889.

387. A 7.1.75-76 : अस्थिदधिसक्थ्यक्षामनडुदात्तः ।, छन्दस्यपि दृश्यते ।

388. For example, padapāṭha to RV 7.94.9a, 10.51.8b, 9b.

389. For example, padapāṭha to RV 1.100.16c, 1.164.16b, 10.71.7a.

390. A 8.2.16 vt. 2 : परादौ वत्प्रतिषेधोऽवग्रहश्च । Bh. III. 397.11 : अवग्रहश्चानिष्टे देशे प्राप्नोति ।

rules of grammar, forming their padas accordingly.³⁹¹ Śākalya clearly has not followed Pāṇini's system of rules, but it is obvious that his analysis of derivatives such as those considered above is nevertheless systematic. Indeed, although Śākalya has not left to us any set of rules like Saunaka's *R̥gvedaprātiśākhya* or Kātyāyana's *Vājasaneyiprātiśākhya*, there can be no doubt whatever that his analysis of forms with *mat* etc. reflects a principle that could be stated in terms similar to Kātyāyana's : A break is made before the *taddhita* suffix if the shape of the preceding term conforms to what is regular at a pada boundary before the initial sound in question.³⁹² Since a pada in *-s* is not regularly found before *v-*, then, no break is made between *ūrjas* and *vat*. On the other hand, pada-final vowels and *-ṇ* are permissible before *m-*, *v-*, so that forms of *go-mat*, *hiraṇya-vat*, *vṛṣaṇ-vat* are analyzed as shown. It is also noteworthy that in Śākalya's padapāṭha the first part of *vṛṣaṇ-vat*, *akṣaṇ-vat* is given with *-ṇ*, not with *-n*. This is explainable on the assumption that Śākalya could not link forms such as *vṛṣaṇ-vantam*, *akṣaṇ-vān* with *vṛṣaṇvantam*, *akṣaṇvān* of the *saṃhitā-pāṭha* by a regular procedure : pada-final *n* is not regularly subject to retroflexion. It is proper to conclude that, although we do not have a *prātiśākhya* work ascribable to Śākalya, he not only produced the padapāṭha for the *R̥gveda saṃhitā-pāṭha* but also conceived of regular procedures whereby one could be derived from the other.

Similarly, Pāṇini's sūtras obviously are meant to relate posited strings of elements with utterances of actual usage by means of a derivational system. Indeed, I do not think one can reasonably doubt that in using such a derivational system Pāṇini has followed the example of grammarians who preceded him, including Śākalya. Moreover, since Pāṇini knew Śākalya's

391. Bh. III. 398. 8-10 : अवग्रहेऽपि न लक्षणेन पदकारा अनुवर्त्याः पदकारैर्नाम लक्षणमनुवर्त्यम् । यथालक्षणं पदं कर्तव्यम् । As is well known, Patañjali says the same in other contexts too, but these do not concern us in the present discussion.

392. VPr. 5.8 : तद्वति तद्विते न्यायसंहितं चेत् ।

work when he composed his Aṣṭādhyāyī, he could not but be aware that his analysis of derivatives like *vr̥ṣaṇvat* was different from Śākalya's. It is therefore proper to attribute to Pāṇini the awareness that alternative means could serve in different systems to account for the same ends. We are entitled to go further. Certainly, Śākalya would not commit the sacrilege of considering his padapāṭha truly the source for the saṃhitāpāṭha of the Ṛgveda. He could only consider his analyzed text a source in the sense of a posited text meant to account systematically for the truly original text, the saṃhitāpāṭha of the ṛṣis.³⁹³ In the same way, Pāṇini doubtless viewed the bases, affixes, augments and padas provided for and operated upon in his derivational system only as a possible means posited in order to account for words and utterances of *laukika* usage and Vedic texts. In sum, the evidence supports the conclusion that Bhartṛhari's view of the fictitious nature of constituents with which grammarians operate³⁹⁴ has antecedents in earlier Indian grammarians, including Pāṇini.

393. RPr. 2.1 : संहिता पदप्रकृतिः ।, Nirukta 1.17 : पदप्रकृतिः संहिता । पद-
प्रकृतीनि सर्वचरणानां पार्षदानि । As Durga remarks in his comments on the Nirukta
passage (I. 104-105), although prātiśākhya rules take padas of the padapāṭha
as the source whence the saṃhitāpāṭha is derived, the latter is obviously the
true original text. See also VP 2.58.

394. The constituents of padas within alaukikavākyas posited to describe
real utterances are clearly fictitious, although padas of actual utterances are not
absolutely denied any status (see section 14.3.2 with note 347). In addition,
the monophthongs *e o* are treated as composite sounds for phonological
reasons only (see section 3.2).

work when he compared his *Ashtādhyāyī*, he could not but be aware that his analysis of derivatives like *vyavahāra* was different from *Sāhitya*. It is therefore proper to attribute to Pāṇini the awareness that alternative means could serve in different systems to account for the same ends. We are entitled to go further. Certainly, *Sāhitya* would not contain the sentence or considering his paradigm, he tried the source for the significance of the *vyvāhāra*. He could only consider his analyzed text a source in the sense of a possible text meant to account systematically for the truly original text, the significance of the *vyvāhāra*. In the same way, Pāṇini doobles viewed the bases, affixes, arguments and padas provided for and operated upon in his derivational system only as a possible means posited in order to account for words and utterances of *laukika* usage and Vedic texts. In sum, the evidence supports the conclusion that Bhartrhari's view of the fictitious nature of constituents with which grammarians operate has antecedents in earlier Indian grammarians, including Pāṇini.

THE 10th, 11th and 12th chapters of the *Ashtādhyāyī* (1.10-1.12) are devoted to the treatment of the sentence and its constituents. In the 10th chapter, Pāṇini discusses the sentence as a whole, and in the 11th and 12th chapters, he discusses the constituents of the sentence, namely, the word, the phrase, and the clause. The 10th chapter is divided into two sections, the first section (1.10.1-1.10.10) dealing with the sentence as a whole, and the second section (1.10.11-1.10.20) dealing with the constituents of the sentence. The 11th chapter is divided into two sections, the first section (1.11.1-1.11.10) dealing with the word, and the second section (1.11.11-1.11.20) dealing with the phrase. The 12th chapter is divided into two sections, the first section (1.12.1-1.12.10) dealing with the clause, and the second section (1.12.11-1.12.20) dealing with the sentence as a whole. The 10th chapter is the most important chapter in the *Ashtādhyāyī*, as it contains the most important rules for the construction of the sentence. The 11th and 12th chapters are also important, as they contain the most important rules for the analysis of the sentence. The 10th chapter is the most important chapter in the *Ashtādhyāyī*, as it contains the most important rules for the construction of the sentence. The 11th and 12th chapters are also important, as they contain the most important rules for the analysis of the sentence.

